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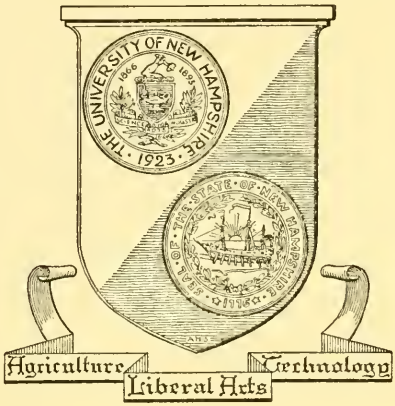

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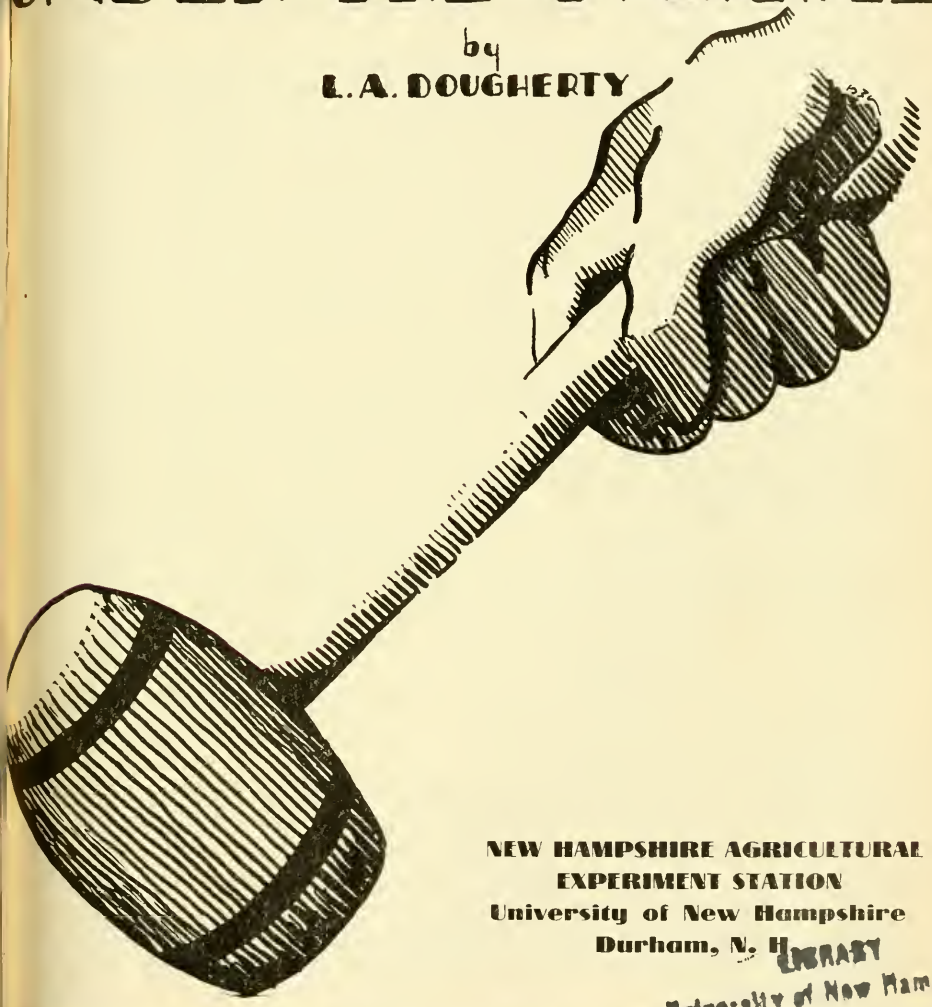
EGGS UNDER·THE·HAMMER

by

L. A. DOUGHERTY



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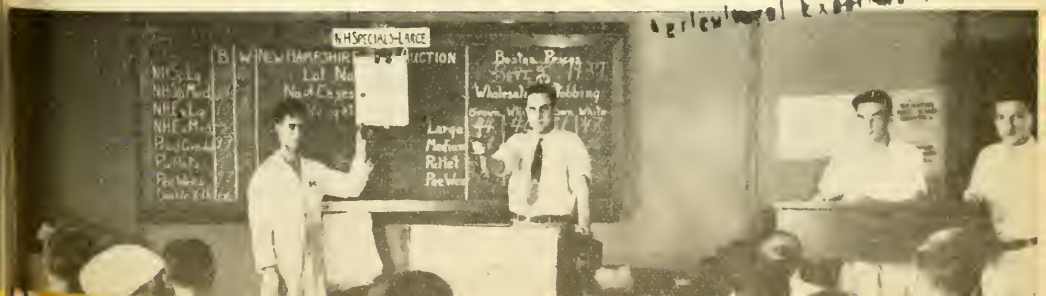


A FEW FACTS IN SUMMARY

1. The New Hampshire Egg Auction started operation June 11, 1934; sold about 22,500 cases the first year, and 33,500 cases the second year; reduced net charges from 50 cents to 40 cents per case; increased active membership from 42 to 594 in thirty months.
2. In 1935, about 22 per cent of members shipped in every month.
3. One-fourth the shippers sold 100 cases or more each through the New Hampshire Egg Auction in 1935-1936 and accounted for two-thirds the volume.
4. The three leading towns in volume of eggs shipped were Kingston, Derry, and Manchester.
5. About 60 per cent of commercial producers gather eggs three times daily or oftener.
6. About 56 per cent of auction eggs are sold on Thursday, 44 per cent on Monday.
7. About 70 per cent of eggs are sold on auction sales, 30 per cent between sales.
8. Sixty pounds is the most common gross weight sold.
9. About 63 per cent of all auction eggs sold are large eggs—23 per cent mediums, and 10 per cent pullets.
10. Candling records sent to producers resulted in quality improvement of those with low records.
11. Old auction members whose numbers are well known have a slight price advantage over new members.
12. The first large eggs sold on an auction sale have a very small price advantage over those sold at the end of the sale.
13. About 60 per cent of buyers attending auction sales are peddlers and they buy about 40 per cent of the eggs sold.
14. Massachusetts buys about 84 per cent and New Hampshire 16 per cent of the auction eggs.
15. Auction prices on New Hampshire Special Grade Large Brown eggs exceed Boston Wholesale Quotations on Near-by Specials in about 80 per cent of the sales.
16. Auction premiums are highest in August and September.
17. Brown eggs bring on the average about 1.5 cents a dozen more than white eggs of the same grade on auction sales.
18. Heavy weight large brown eggs bring more per dozen but less per pound than light weight large eggs do.
19. Although the price per pound of eggs usually increases sharply between official sizes, it usually decreases as weights increase within a given size.
20. Special Grade Large Brown eggs bring an average premium of about two cents a dozen over Extras.
21. Correct marking of egg sizes for store sales has greatly improved since the fresh egg law went into effect.
22. In 1935-1936, the average margin on eggs sold in retail stores was about 6.2 cents a dozen.

Eggs Under the Hammer

Marketing of New Hampshire Eggs with Special Reference to the Auction Method of Sale

L. A. Dougherty

POULTRYMEN in New Hampshire are near good markets, and have sold their eggs to advantage in a great variety of ways. Sales direct to consumers and in jobbing lots to peddlers and other retailers have constituted important outlets. Sales of hatching eggs have also absorbed a considerable volume at certain times of the year.

As the volume of business increased, need was felt for some dependable outlet for large quantities of fine quality eggs. Auctions in other sections and especially in New Jersey had attracted considerable attention, and the poultrymen of the state became definitely interested in determining the possibilities of the auction method of sale in New Hampshire.

It seemed logical to start a study in methods of egg marketing at a time when important changes were about to take place. This study was planned before an auction became a certainty. If it materialized and developed as anticipated, the principal part of the study was to center around the auction method of selling. The auction did materialize and has become an increasingly important factor in the marketing of New Hampshire eggs.

The principal purpose of this study was to determine the relationship between different qualities, weights, and methods of handling eggs and the prices received for them. It was also of interest to know how important a role the auction method would assume, to what extent its methods might need to be modified, and to what extent it would influence other methods of sale.

Source of Data

Most of the data in connection with auction sales were obtained from individual grading slips and from daily auction sale record sheets. Other data were obtained direct from auction members by mail or by personal contacts. The period covered was from the beginning of the auction in June, 1934, to the end of 1936.

Data on sales to and by retail stores were obtained from reports and inspection records of the State Department of Agriculture, from advertisements in newspapers, from producers supplying retail stores and from the stores themselves.

Records of producers selling direct to Boston dealers were obtained. Boston wholesale quotations were obtained from the Boston Fruit and Produce Exchange daily reports.

COMPOSITION OF NEW HAMPSHIRE FLOCKS

Breeds

The New England Crop Reporting Service reports breeds of chickens kept in New Hampshire in a survey as of June 1, 1935.

New Hampshires	70.1%	Cross Breeds	2.0%
Rhode Island Reds	14.6%	White Rocks	.4%
White Leghorns	7.1%	Others	.4%
Barred Rocks	5.4%		

Size of Flocks

In recent years surveys of commercial flocks have been made in October of each year to determine changes in numbers of birds on hand and to be housed. All auction members were included among others in these surveys. The percentage of producers with flocks of various sizes is indicated in Table 1.

Table 1. *Average size of commercial flocks in New Hampshire for years 1934, 1935 and 1936*

Size of flocks	Percentage of producers with flocks in each size group (October)	Percentage of birds in each size group (October)
1—100	11.7	1.1
101—500	38.5	15.4
501—1000	27.6	25.7
1001—1500	11.6	18.1
1501—2000	4.0	9.0
Over 2000	6.6	30.7
Av. no. producers included	339	
Av. no. birds included		308,214

Percentages somewhat similar to the above are indicated in the U. S. Census of 1935 for all flocks. However, census figures include a larger number of small home flocks and show 21.2 per cent in flocks of less than 100.

MARKET OUTLETS FOR NEW HAMPSHIRE EGGS

New Hampshire poultrymen have many outlets for their eggs. This is indicated by reports that have been made from time to time. In 1931 reports from 300 producers indicated that about 11 per cent were selling most of their eggs to hatcheries in season. At that time the most frequent methods of sale were to: (1) consumers, (2) retail stores, (3) routemen, (4) wholesalers, (5) jobbers, (6) commissionmen, and (7) hatcheries.

The order indicates frequency but not volume sold in different ways. Since that time sales of chicks and hatching eggs have increased in importance, and large quantities of eggs have been sold by auction.

The October 1936 reports from about 275 producers, the majority of whom sold some eggs by the auction method, reported 76 per cent of all eggs sold as market eggs, 7 per cent as chicks, and 17 per cent as hatching eggs in the 1935-1936 season. More detailed figures are shown in Tables 2 and 3.

All producers with flocks of over 1000 birds sold over 30 per cent of all eggs for hatching purposes in season as well as considerable numbers of chicks.

TABLE 2.—*Per cent of eggs sold in various ways by 273 N. H. producers during the hatching season—January-May, 1936*

Size of producer	Number producers	Per cent sold as		
		Market eggs	Chicks	Hatching eggs
0— 100	26	100	—	—
101— 500	110	92	2.9	5.
501—1000	76	81.5	3.2	15.3
1001—1500	33	57.7	11.6	30.7
1501—2000	11	38.3	22.	39.7
2001 and over	17	28.5	32.4	39.1
	273			
Weighted average		59.5	15.	25.5

Even in the remaining seven months (June—December), about 19 per cent of all eggs were sold as hatching eggs or chicks. Large producers with flocks of over 2000 birds sold but 61.1 per cent of their eggs as market eggs.

TABLE 3.—*Per cent of eggs sold in various ways by 252 New Hampshire producers in the year ending October 1, 1936*

Size of producer	Number producers	Per cent sold as		
		Market eggs	Chicks	Hatching eggs
0— 100	27	100	—	—
101— 500	107	96.4	1.2	2.4
501—1000	71	85.2	3.5	11.3
1001—1500	26	76.3	5.3	18.4
1501—2000	10	63.2	13.2	23.6
2001 and up	11	49.6	14.7	35.6
	252			
Weighted average		75.6	6.9	17.5

About two-thirds of all hatching eggs reported were sold in New England, although actually a large quantity of eggs and chicks eventually reach the Middle Atlantic States, because of large sales by producers and hatcherymen who handle eggs from other flocks.

Organization and Operation of the New Hampshire Egg Auction

Early in 1934 a committee was selected by the New Hampshire Poultry Growers' Association to look into the feasibility of setting up an egg auction in New Hampshire.

This committee made arrangements for opening an auction on June 11, 1934, at Derry, to be operated by the Farmers' Trading Post, a local community roadside market organization. General policies were in the hands of the original committee, but responsibility for details of operation was left with the Trading Post and was largely in the hands of three of its directors who were themselves poultrymen and members of the New Hampshire Poultry Growers' Association. An experienced manager was selected at the very beginning. The organization was operated under this arrangement until early in 1937 when the auction was taken over by the New Hampshire Poultry Growers' Association for the poultrymen of the State pending reorganization to best fit the needs of its producer patrons. Although not strictly a cooperative it

has always been operated in the interests of its members and has made cash rebates to them. However, beginning December 14, 1937, the organization will start business as a full-fledged cooperative.

Membership in the Auction

Membership has been open to any poultryman in the State for an initial fee of $3.00 and payment of $1.00 per year thereafter. When a producer ships a case to the auction, he automatically becomes a member since his dues are deducted unless such membership has previously been paid.

The active membership in different months ranged from 42 in July, 1934, to 594 in December, 1936. Total cumulative membership had reached about 870 by the latter date.

The highest number of active members has occurred in December of each year. The largest number of new members occurs in November and December of each year. This is due to the heavy production of pullet flocks and declining egg prices. (See Fig. 1).

Number of Producers Selling on the New Hampshire Egg Auction
(June, 1934—December, 1936)

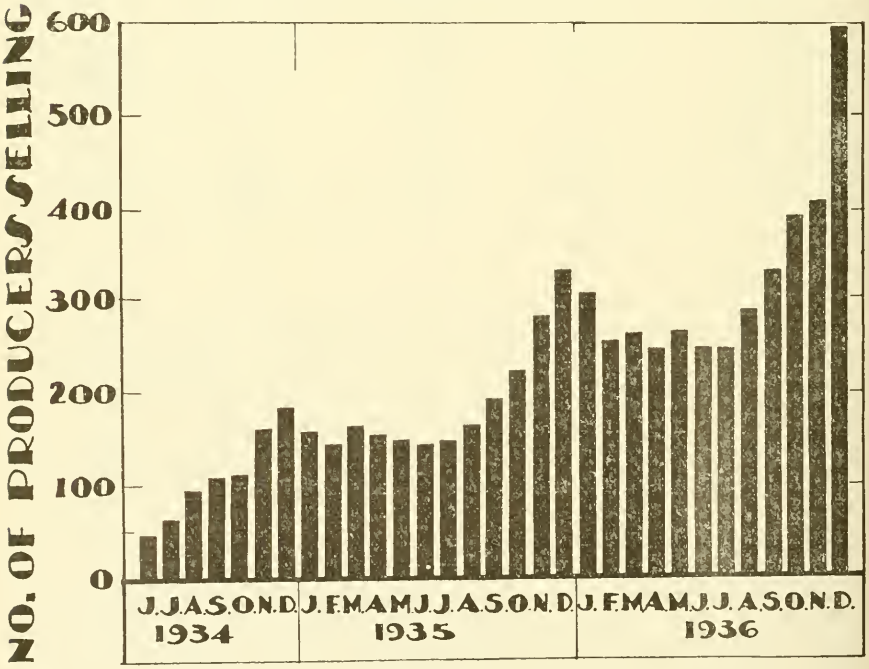


Figure 1. The number of producers selling on the auction increased over threefold between December, 1934, and December, 1936.

Charges

Initial charges were 50 cents a case which included the candling of 100 eggs in a case, pronouncement of grade, and sale of the eggs. If candling of all eggs in the case was required, 30 cents additional charge

was made. This candling charge was eliminated in the third year. To encourage patronage of small poultrymen selling less than one case a week, some eggs were later accepted, handled at a charge of 2¢ a dozen, and sold under a given number.

From the initial handling charge of 50 cents a case, a rebate of 2 cents was paid covering the first 7 months, *i.e.* a net charge of 48 cents a case.

In the second year the handling charge was cut to 45 cents and a rebate of 5 cents per case was paid in but one month (May).

In the third year a 45 cent handling charge was maintained and a rebate of 5 cents per case was paid.

Regulations

Eggs required to replace those that were broken or candled out are charged at cost.

All eggs are sent in one-way cases holding 30 dozen with clean flats and fillers specified. The majority of producers use second-hand cases.

Inspections are usually made by certified state inspectors on the basis of 100 candled eggs per case. A label, placed on the end of every case, bears the producer's number, grade, color, gross weight, and inspector's number.

Sales are held on Monday and Thursday at 10 a. m.

Telephone bids are accepted and entered by a representative of the auction organization.

Eggs are sold on a cash basis.

WEIGHTS OF EGGS

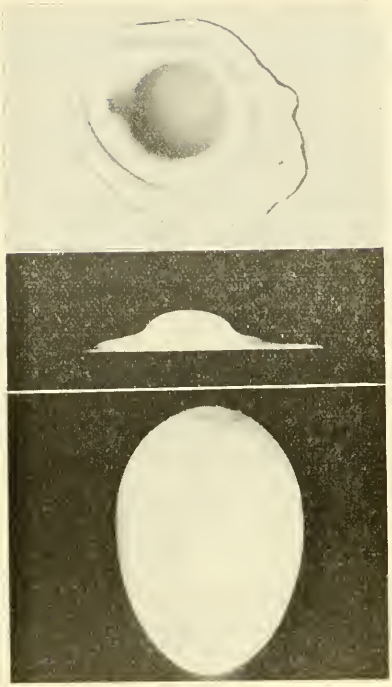
The weights of all grades of eggs, whether sold by the auction or elsewhere, are established under the New Hampshire Fresh Egg Law standards as follows:

	Minimum net weight per dozen	Minimum weight for individual eggs	Minimum gross weight per case
Large	24 oz.	1 11/12 oz.	57 lbs.
Medium	21½ oz.	1 9/12 oz.	52½ lbs.
Pullet	19 oz.	1 7/12 oz.	48 lbs.
Peewee	Under 19 oz.	Under 1 7/12 oz.	Under 48 lbs.

In addition, three other classifications—double yolk, very large, and producer's grade—are established by the auction. Double yolk eggs must have a minimum weight of 32 ounces and be packed 12 dozen to the case. At first some very large eggs were included, but the standard set now calls for only eggs with two yolks.

Very large eggs, when included with normal size large eggs, may spoil the appearance of the pack and also cause excessive breakage. About the middle of 1936 a very large grade was established which includes eggs between 28 and 32 ounces per dozen, and these are packed 15 dozen to the case.

Producer's Grade is an auction grade which includes eggs that are not sufficiently well graded as to size to be included under other grades. However, the size term is added and the average weight determines



The pictures above* represent a high quality egg which will qualify as fresh under the New Hampshire Fresh Egg Law. Note especially the small air cell as seen before the candler and how the egg "heaps up" when broken out because the yolk "stands up" and the white is viscous and holds together around the yolk. Both N. H. Specials and Extras qualify as fresh eggs.

the term used. For example, if the average weight is 24 ounces per dozen or more but the number of undersize eggs exceeds the tolerance allowed, they may be called Producer's Grade, Large. Eggs that have not been graded or that have been improperly graded may be sold under Producer's Grade.

All Producer's Grade must, however, meet the quality qualifications for either Extras or Specials.

The Unclassified Grade is an official State grade defined by law and includes eggs which do not meet the size requirements for Large, Medium, Pullet, or Peewee size eggs and refers to eggs "which have not been sorted or graded to size."

Tolerance on Weight

The New Hampshire Fresh Egg Law permits a maximum of two eggs in a dozen to be in the next lower weight classification; e.g. large eggs may contain two 22-ounce eggs (mediums) but no pullet-size eggs. For auction sale, however, if ten or more eggs in a case do not meet the weight requirements for the grade, they are sold as producer's grade.

Quality of Eggs

The auction uses official State grades on quality. Two voluntary grades are set up by the State Department of Agriculture as follows:

New Hampshire Specials—(Finest Quality)

(a) Shell—clean, sound and normal.
(b) Air cell—⅛ inch or less in depth, regular.
(c) Yolk—well centered, outline indistinct.
(d) White—firm and clear.
(e) Reasonably uniform in shape and color.

New Hampshire Extras—(Good Quality)

(a) Shell—clean, sound and normal.

*The pictures of whole eggs in this and the following plate are shown through the courtesy of John H. Vondell, Mass. Agric. College, and those of the broken eggs through the courtesy of Cornell University.

(b) Air cell—2/8 inch or less in depth, regular.

(c) Yolk—fairly well centered, outline moderately defined.

(d) White—firm and clear.

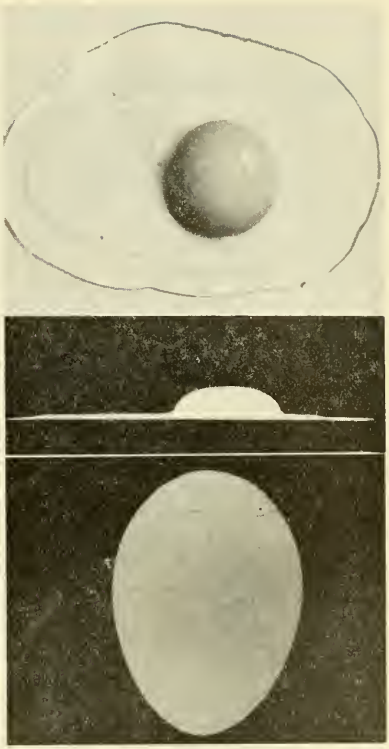
(e) Reasonably uniform in shape and color.

The auction allows a tolerance of 20 per cent, of which 10 per cent must be in the next lower grade and not over 2 per cent for inedible eggs and other losses.

Both New Hampshire Specials and New Hampshire Extras will conform to fresh egg standards under the present Fresh Egg Law.

Auction Procedure

After arrival, eggs are weighed and the gross weights noted. Cases are figured at 12 pounds, but proper allowance is made for heavy and light cases. Only 100 eggs in a case are candled unless they exceed the tolerance on quality when all eggs are candled. A weight and candling record is made on every case for every producer; later the price, deductions for replacements, charges, gross and net return are entered, and this slip is sent to the producer for his information. The cases of eggs are piled in tiers according to grades and numbers where they are left until the sale.



The above pictures represent an egg that is not sufficiently high in quality to qualify as fresh under the New Hampshire Fresh Egg Law. Note the large air cell in the shell egg before the candler, the less rounded yolk, and the more watery white which spreads out some distance from the yolk when the egg is broken out.

A bulletin board is placed at the front of the sales room on which the Boston wholesale prices for all sizes, the quantity of each grade and the sizes of eggs for the sale are posted.

The auctioneer then sells the eggs in lots of from 1 to 5 cases. Special Grade Large Brown eggs sell first in the sale.

The auction representative who bids for the telephone buyers sits in front and is recognized by all buyers.

The sale moves along rapidly and is usually over within 60 minutes. Buyers can make payments and take their eggs as soon as purchased. Most of the telephone purchases are shipped by express or truck to points designated.

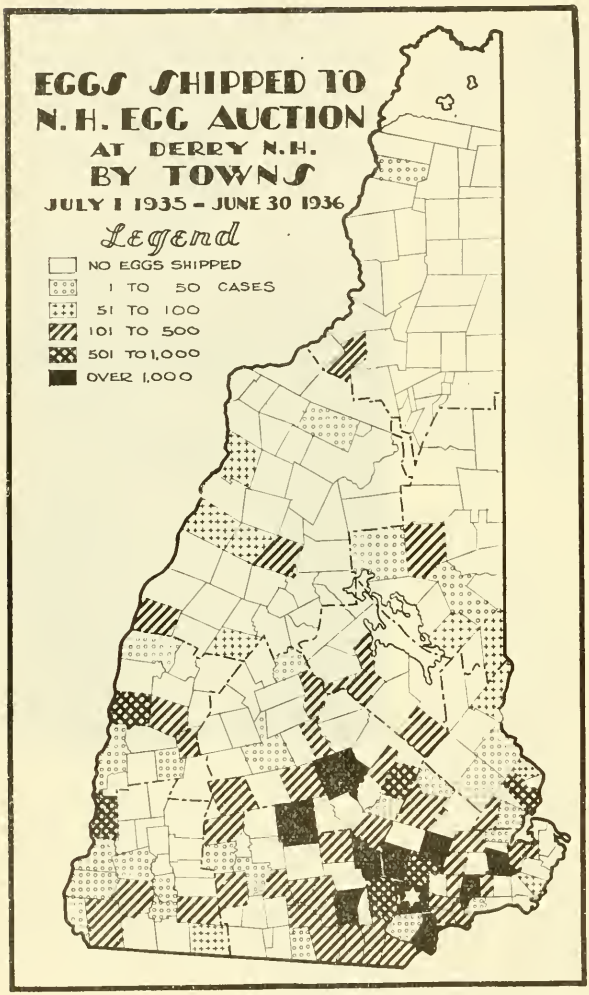


FIGURE 2. Three towns, Derry, Kingston, and Concord, shipped over 1000 cases each in the first year. Ten towns shipped over 1000 cases each in the second year.

SOURCES OF EGGS

The volume of eggs supplied the auction and the approximate quantities are shown in Table 4.

All counties increased their volume in the second or 1935-1936 year except Belknap, Carroll, and Grafton.

Ten New Hampshire towns sent 1000 or more cases. They were in order:

Kingston	4500 cases	Raymond	1466 cases	Merrimack	1253 cases
Derry	2324 cases	Salem	1429 cases	Concord	1246 cases
Manchester	2092 cases	Exeter	1292 cases	Auburn	1081 cases
Weare	1583 cases				

Of these towns, Kingston, Derry and Concord were the only ones shipping more than 1000 cases in 1934-1935.

TABLE 4.— *Approximate number of cases of eggs shipped from various New Hampshire counties to the N. H. Egg Auction in 1934–'35 and 1935–'36.*

County	No. cases shipped		County	No. cases shipped	
	1934–'35	1935–'36		1934–'35	1935–'36
Belknap	687	564	Hillsborough	3,877	7,872
Carroll	601	473	Merrimack	2,469	3,228
Cheshire	323	1,879	Rockingham	11,516	16,446
Coos	17	124	Strafford	770	907
Grafton	1,159	1,141	Sullivan	607	1,051
Vermont	364	2,243	All sources*	22,390	35,928

*Some fractional cases included in totals.

PREPARATION OF EGGS FOR MARKET

Frequent Gathering Factor in Egg Cleanliness

A survey of 100 auction members reveals that eggs were gathered with the following frequency:

Producers gathering	Percentage of all producers	
	Summer	Winter
Once daily	3%	3%
Twice daily	37%	34%
Three times daily	46%	49%
Four times daily	14%	14%

The remarkable record for clean eggs sent in by auction members is in part accounted for by the frequent gathering of eggs. Other factors, of course, are clean houses and nests, dry houses, confinement of hens, care in handling and preparation for shipment.

Methods Used in Cleaning Eggs

Many producers use more than one method for cleaning eggs. Some will use an abrasive or damp cloth but will wash the dirtiest ones. The following figures suggest the approximate relative frequency with which different methods are used:

Wash with water	38%	Scrape with knife	13%
Use damp cloth	23%	Vinegar and an abrasive	2%
Use steel wool	23%	Sal soda	1%

Most Eggs Cooled in Collecting Containers

A survey covering methods by 100 auction members indicated that eggs were cooled in the following containers:

Wire baskets	23 per cent	Wooden buckets	7 per cent
Metal buckets	51 per cent	Left in case	4 per cent
Baskets (wood)	15 per cent		

Later observations indicate a very considerable increase in the use of wire baskets, which probably now constitute one-third to one-half of containers in which eggs are cooled. Some difficulty has been experienced in their use, the most frequent criticism being that they result in

breakage of eggs and that they mark the eggs. The manufacture of heavier baskets and the use of inserts in such baskets have eliminated some of this trouble. It is most important that the container should permit circulation of air and rapid cooling of eggs. Even a wooden bucket with holes bored in sides and bottom is better than a tight wooden or metal container.

Placing the eggs in a wire-bottom tray immediately after collecting would result in still more rapid cooling but would involve one additional handling and possible additional soiling of the eggs. It is doubtful, therefore, whether such practice is advisable except in very warm weather or where the egg room is above 60° F. When shipments are made twice a week and the egg room is 60° F. or lower, the wire collecting baskets should prove a very satisfactory container for overnight cooling.

Most Producers Have Egg Scales -- and Use Them

Reports from a large number of auction members indicate that:

26% weigh all eggs
30% weigh most of the eggs
40% weigh part of the eggs
4% weigh few or no eggs

Almost every producer has an egg scale or a grading machine or both. Those who have a grading machine weigh most or all of their eggs. Those who have only a scale, check doubtful weights of eggs. A few, who are in most cases small producers, weigh every egg.

It appears to the writer that many producers waste considerable time in weighing. With the possible exception of a few months in the late summer or fall it should not be necessary to weigh the majority of eggs. A tolerance allowing two eggs per dozen of the next size is allowed under the New Hampshire Fresh Egg Law. The New Hampshire Egg Auction, however, allows but 10 underweight eggs per case. These tolerances are established to take care of normal errors in grading.

While it may pay to weigh a considerable number of eggs when the price differential between sizes is large, it is doubtful whether it does pay in months when there is little price difference. Producers should check themselves on the time they are spending in weighing eggs and determine whether they may not use some of this time to better advantage. Large producers may find it desirable to use an egg grading machine although some study should be given possible savings in advance.

Producers Candle Few Eggs

About 88 per cent of the producers candle none of the eggs sent in for auction sale. Of the remaining 12 per cent about half candle some eggs, and the others candle all the eggs.

It appears that in the majority of cases the candling of eggs by producers shipping to either the auction or wholesale markets is of doubtful value. They will be candled anyway and this seems a duplication of effort.

It seems desirable, however, for producers to have a candler and to check on egg quality from time to time. If eggs were running low in

quality and candling charges were being made in addition to large replacements of eggs, it might pay for a producer to candle. This would be less applicable to auction sales, however, since producers obtain a statement of the candling of their eggs.

VOLUME OF AUCTION SALES

The volume of eggs sold through the New Hampshire Egg Auction increased from 907 cases in the first full month (July, 1934) to 10,052 cases in December, 1936. (Fig. 3 shows the volume for each month during 1934, 1935, and 1936.)

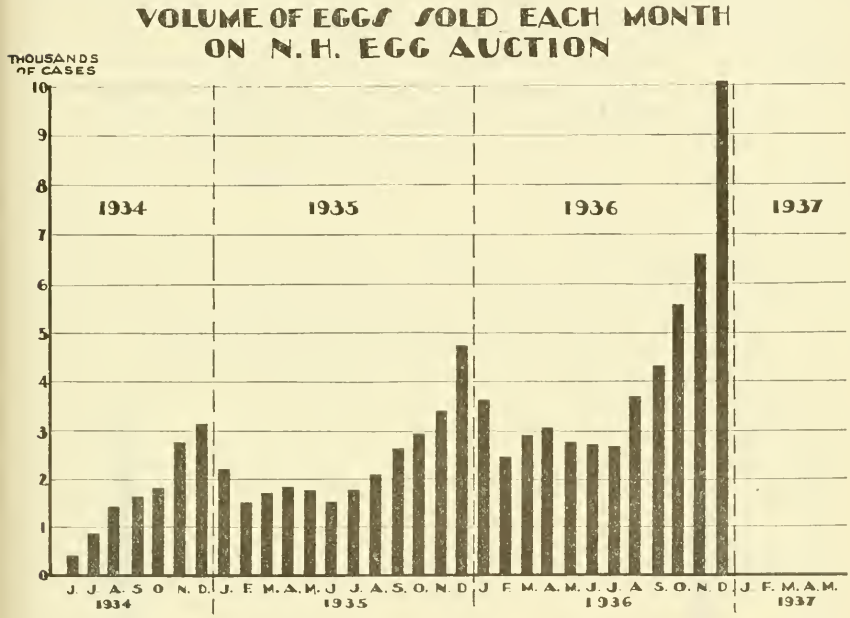


FIGURE 3. A steady increase in volume of eggs occurs from July to December inclusive, followed by a more irregular volume in the next six months.

The peak sales come in December in each year. This is the "off season" for other types of sales, and pullet flocks are in heavy production by that time. The demand for hatching eggs absorbs large quantities beginning in February, and in the summer many eggs are sold direct to consumers or jobbed to peddlers, stores, and summer resorts. In late summer and in the fall the supply of market eggs is short. Some eggs also go to hatcheries for broiler chicks at this time.

Over a two-year period 56 per cent of all egg sales were made on Thursdays and 44 per cent on Mondays. The percentage sold on Thursday increased in the second year in an amount equal to 6 per cent of total sales.

In the past two years the December volume of sales has been over three times that of the previous low months of June or July. Growth of the auction accounts for over one-fourth of this variation, but various seasonal factors such as changes in production, demand for hatching

eggs and opportunities for direct sale in the summer account for the largest part of the change between low and high months.

METHODS OF SALE

Although the New Hampshire Egg Auction was set up primarily to use the auction method, it has sold eggs in other ways in order to meet the needs of its customers and to realize the best returns for its members.

"On Sale" eggs are those sold to the highest bidder at the regular auction sales held twice each week, and include sales to both telephone bidders and those buying "in person". "Off Sale" eggs are sold between regular auction sales at prices based on the previous auction sale with allowance for any price changes occurring since that time.

During the representative months of January, April, July and October over a period of two years, monthly averages of from 9 to 46 per cent of the eggs were sold "off sale". See Fig. 5 for percentages sold off and on sale for ten different months in the period July, 1934—October, 1936.

Three important reasons may be offered for making sales of eggs by other than the auction method.

1 Volume was so large at times as to make it impossible to sell all eggs to advantage on auction sales.

Regularity of Egg Shipments as Indicated by the Number of Months in Which Various Numbers of Producers Shipped Eggs in 1935 to the New Hampshire Egg Auction
(Includes only shippers who were active previous to January, 1935)

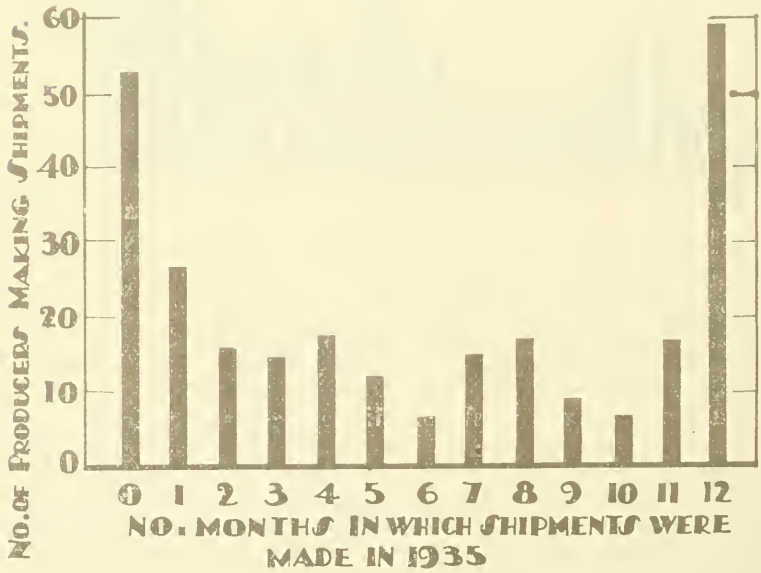


Figure 4. Because of many market outlets, including hatching egg sales, many producers are irregular shippers to the auction. Of that group active before January 1, 1935, scarcely half made shipments in six or more months in the year.

2. Buyers demand other types of service, and no selling organization can afford not to meet the needs of buyers.
3. To have held all eggs for auction sale in peak periods would have necessitated additional room for handling and storage.

Regularity and Volume of Shipments by Producers

Producers have many different outlets for eggs almost at their door, and competition is keen enough to make one and then another most attractive. As a result many producers not only sell in different ways but will shift from one period to another. Because of this situation no effort was made by the egg auction to contract for all eggs produced.

Of that group of shippers which was active previous to 1935,

19.8% shipped no eggs to the auction in 1935
34.7% shipped in 1 to 6 months in 12 in 1935
23.5% shipped in 7 to 11 months in 12 in 1935
22.0% shipped in all 12 months in 1935

(See Fig. 4 for those shipping different numbers of months during 1935.)

The fact that so many producers do not ship regularly makes it necessary to have a large number of members to get the volume for efficient operation. While from one standpoint we might argue that producers should ship more regularly, the auction organizations may actually render the greatest service in furnishing an outlet when such outlet is believed most profitable by member patrons. The New Hampshire Egg Auction has given all producers complete freedom as to frequency and quantities shipped. It was believed that contracts would serve no better purpose as in the long run members will not patronize an organization unless they can see a definite benefit from such patronage.

It is always well for producers to give careful consideration to the net returns obtainable over a period of time in considering various methods of sale which may be followed.

TABLE 5.—*Producers grouped as to quantity of eggs sent to N. H. Egg Auction two-year period*

Grouping based on volume of cases shipped	July 1, 1934—June 30, 1935			July 1, 1935—June 30, 1936		
	Number producers shipping	Per cent of all producers	Per cent of total volume	Number producers shipping	Per cent of all producers	Per cent of total volume
1– 10	78	25.8	1.8	94	20.8	1.4
11– 20	39	12.9	2.7	47	10.4	2.0
21– 50	72	23.9	10.4	116	25.7	11.0
51– 75	32	10.6	8.6	51	11.3	9.0
76– 100	24	8.	9.8	32	7.1	7.8
101– 200	41	13.6	25.5	72	15.9	27.6
201– 400	11	3.6	13.3	34	7.5	25.5
401– 800	4	1.3	11	4	9	4.9
801–1200	. . .	. . . .	. . .	1	.2	3.1
1200 and over	1	.3	16.9	1	.2	7.7
	302	100.	100.	452	100.	100.

Volume of Shipments

In the 1934-1935 year, 18.7 per cent of the producers shipped over 100 cases or more to the auction and accounted for 66.7 per cent of the total volume. In the following year (1935-1936), 24.7 per cent of the producers shipped over 100 cases each and accounted for 68.8 per cent of the total volume. The producers who ship an average of two or more cases weekly are the backbone of the auction.

See Table 5 on previous page for more detailed figures.

Auction Candling and Replacement Charges

Candling charges on over 20,000 cases sold in the first year by the New Hampshire Egg Auction amounted to approximately 0.45 of one cent per case or 0.048 of one cent per dollar of sales.

This may be considered a very small charge and is indicative of the quality of eggs furnished.

Candling Reports Bring Quality Improvements

An analysis was made of candling reports sent all producers whose average replacement charges were 25 per cent or more above average and whose shipments amounted to at least 20 cases in the first year of operation of the auction.

In this group of 49 producers—

28 had smaller charges in the second year
3 had higher charges in the second year
1 had the same charge in the second year
17 made no shipments the second year

Of the 32 producers who made shipments both years—

Average replacement charges the first year were 7.5¢ per case sold
Average replacement charges the second year were 3.6¢ per case sold
Average candling charges the first year were 1.1¢ per case sold
Average candling charges the second year were 0.2¢ per case sold

It is obvious that the sending of reports to producers encourages improvement of egg quality. Most producers appreciate knowing the facts upon which to base improved practices of production and grading, storage, and shipment.

While there are always individuals who resent being told the facts concerning quality of their eggs, if such facts are not complimentary, it is nevertheless a sound practice and the auction has set the pace in adopting it. Other handlers may well follow the example of the auction on sale of eggs on a weight and quality basis.

Replacement Charges Under Four Cents per Case

Replacement charges on over 20,000 cases of eggs sold during the first year of operation of the New Hampshire Egg Auction averaged 3.77 cents per case or 0.4 cents per dollar of sales. (See Table 6 for distribution.)

There was a considerable range in such replacement charges, which for persons shipping 25 cases or more during the year ranged from 0.4 cents to 31 cents per case.

The extent of the replacement charges is a better indication of the need for improved practices than the price received for eggs sold, since the latter includes the producer's eggs plus the replacements for which a charge has been made. Any producer whose replacement charges exceed 3.5 to 4 cents per case can and should make the improvements that will be indicated by a careful study of the grading sheets returned.

TABLE 6.—*Producers selling on New Hampshire Egg Auction, grouped according to replacement charges per case sold.*

(Includes Large Brown Specials and Extras only)
Period July 1, 1934—June 30, 1935

Replacement charges per case sold	Number producers included	Replacement charges per case sold	Number producers included
(Cents)		(Cents)	
0— 1	17	13.1—14	2
1.1— 2	32	14.1—15	3
2.1— 3	51	15.1—16	3
3.1— 4	51	16.1—17	3
4.1— 5	24	17.1—18	0
5.1— 6	23	18.1—19	2
6.1— 7	15	19.1—20	0
7.1— 8	11	20.1—21	0
8.1— 9	6	21.1—22	1
9.1—10	4	22.1—23	1
10.1—11	3	23.1—24	1
11.1—12	5	24.1—25	0
12.1—13	2	Over 25	8

BUYERS OF EGGS AT AUCTION SALES

Types of Buyers

Information as to the type of buyers who purchased about 80 per cent of the eggs on the auction is given in Table 7. Retailers and ped-

TABLE 7.—*Types of buyers with quantities of eggs purchased on New Hampshire Egg Auction over two-year period*

Type of buyer	1934-1935 (157 buyers)		1935-1936 (239 buyers)	
	Per cent of all buyers	Per cent of all eggs purchased	Per cent of all buyers	Per cent of all eggs purchased
Retailer-peddler	60.8	40.8	63.3	40.2
Jobber	25.8	27.3	21.2	22.4
Stores	7.4	15.2	8.9	25.4
Wholesalers	3.7	15.0	2.9	10.3
Bakers	.9	.5	.3	.4
Milk routes	.9	1.2	2.0	1.1
Hotels	.5	—	.7	.2
Restaurants	—	—	.7	—

dlers make up some 60 per cent of the buyers and they purchase about 40 per cent of the eggs. Many of their purchases are in jobbing lots.

The per cent of eggs taken by chain stores increased considerably in the second year. The quantity of eggs going to wholesalers and chain stores is largest during months of heavy supply as in December and January. With the increase in volume, the chains are becoming an increasingly important factor in purchases of eggs on the auction.

Approximate Percentages of the Volume of Eggs Purchased by Buyers in Person on Auction Sales; by Telephone Bids; and Off Sale, for Selected Months (N. H. Egg Auction, 1934-1935-1936)

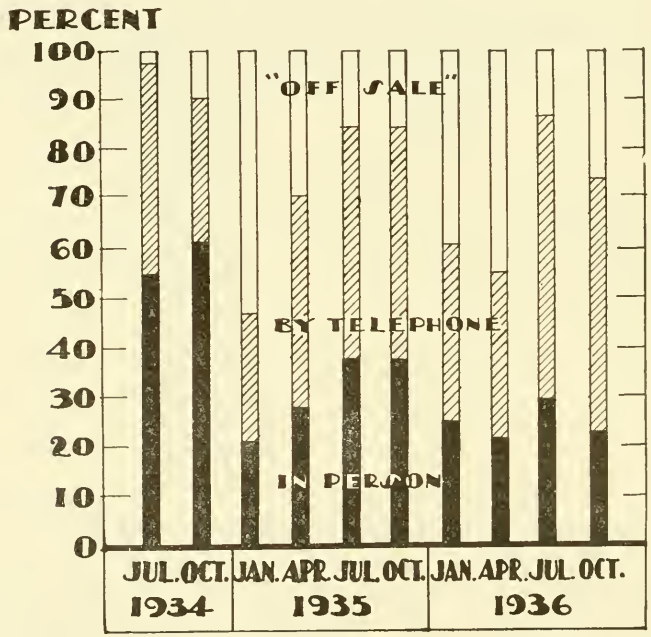


Figure 5. Telephone buyers constitute a very important group on the auction. An employee of the auction bids on the eggs for this group in accordance with the instructions given.

Location of Buyers

Data were obtained on the volume of eggs taken by buyers from different towns during July, October, January, and April in both the 1934-1935 and 1935-1936 years. This information is based on location of the buyer, but of course many peddlers may sell eggs in other towns.

We shall assume the year's total to be three times the total of four representative months in the following table, which shows the towns where the largest annual volume was taken by buyers, (averaged for two years ending June 30, 1936)

Boston	3741 cases	Salem, N. H.	875 cases
Lawrence	1834 cases	Dorchester	735 cases
Somerville	1911 cases	Methuen	630 cases
Jamaica Plain	1359 cases	Milford, N. H.	591 cases
Andover	877 cases	Nashua, N. H.	531 cases

New Hampshire buyers took 16 per cent, and Massachusetts buyers 84 per cent of the eggs sold.

Auction Sales to Telephone Buyers Large

It is not always convenient for buyers to make auction purchases in person, and if required to do so, the volume of sales would be reduced. The auction management, therefore, permits buyers to send in telephone or mail bids which will be executed by an employee of the auction as per instructions. The employee who makes these bids is known to the other bidders on the floor. The bids so made account for an important volume of eggs.

While the volume of eggs purchased by buyers attending the auction in person has increased, the percentage has decreased. The percentage of eggs sold "off sale" and to telephone bidders "on sale" has increased considerably since the first few months of operation, but the percentage increase in 1936 over 1935 has not been great.

(See Fig. 5 for approximate percentage of eggs sold by different methods in eight selected months, 1934 to 1936).

Volume of Eggs Taken by Buyers

Buyers on the auction were grouped according to the number of cases taken monthly, and the percentage of all eggs taken by each group was determined. In July and October the groups with moderate volume took the largest percentage of eggs, but in January and April the groups with a volume exceeding 100 cases led. This is due to the fact that peddlers take a larger per cent of the volume in June and October, while chain stores and wholesalers take more in January and April.

(Table 8 gives percentages taken by each group.)

TABLE 8.— *Percentage of eggs going to buyers taking different volumes of eggs in representative months in both "On Sale" and "Off Sale" purchases (July, October, January, April, 1935–1936)*

Monthly volume of purchases	Percentage of all eggs bought in person at sales				Percentage of all eggs bought "Off Sale"			
	July	Oct.	Jan.	April	July	Oct.	Jan.	April
Cases:								
1– 5	12.3	11.5	11.7	11.9	20.9	9.0	6.3	9.9
6– 10	13.4	11.4	12.2	8.0	12.0	11.2	6.5	8.0
11– 25	36.3	24.0	16.6	30.5	20.4	26.8	17.7	14.7
26– 50	27.5	44.5	20.5	25.6	24.3	25.3	4.8	13.6
51–100	10.5	8.6	14.9	24.0	22.4	3.6	7.6	9.0
Over 100	....	....	24.1	....	....	24.1	57.1	44.8
Total...	100	100	100	100	100	100	100	100

AVERAGE AUCTION PRICES AND TOP BOSTON WHOLESALE QUOTATIONS ON SPECIAL GRADE LARGE BROWN EGGS
1936

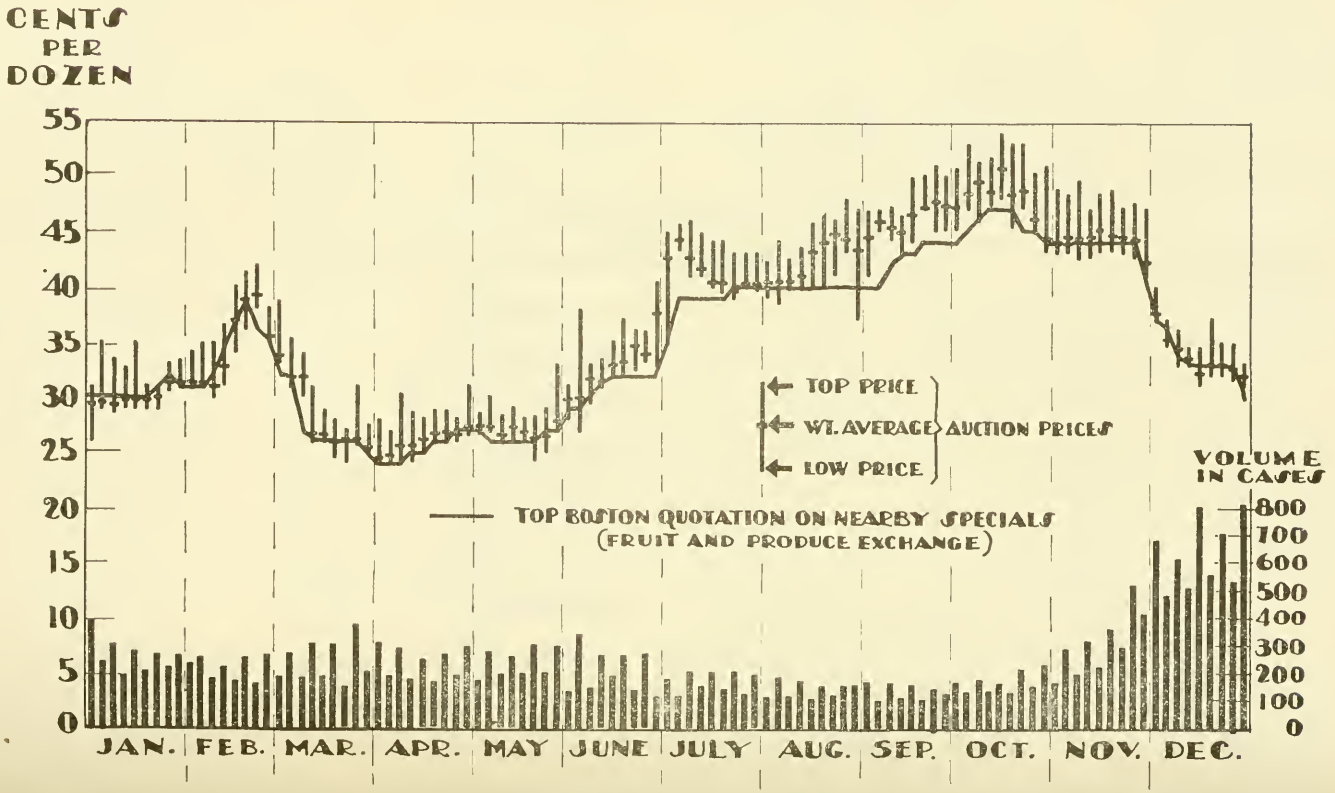


FIGURE 6. Premiums over top Boston wholesale quotations reach their highest point in August or September when the supply is short and there is a good demand from peddlers for the summer trade. Top auction prices always exceed top Boston quotations, but averages may drop under them in months of heavy supply as in December and January.

SALE PRICES VS. QUOTATIONS

Auction Premiums over Boston Quotations

Producers have used Boston wholesale quotations as their price guide for many years. But with auction prices widely quoted in newspapers and over the radio they have become of great importance to poultrymen.

In comparing auction prices with quotations in the following table one must bear in mind that the grades are not quite the same, and that one is weighted average, the other a top quotation.

	Percentage of sales in which auction averages (weighted) exceed top Boston wholesale quotations	Number of months in which monthly averages of sales exceed top Boston wholesale quotations	Months of greatest premiums
1935	76%	8	August
1936	83%	10*	September

*Same in one month and lower in one

(See Fig. 6 for prices on every sale for one year)

Explanation of Frequent Disparity in Auction Prices and Boston Wholesale Quotations

Some reasons for variations in auction prices and Boston wholesale quotations follow:

1. The auction price reports are on actual sales of eggs, while Boston wholesale quotations are set by a committee on the Fruit and Produce Exchange (as referred to in this study).
2. Auction prices reflect both wholesale and jobbing types of sales. Separate wholesale and jobbing quotations are given in Boston, and the jobbing quotation usually averages from 3—6 cents above wholesale quotations.
3. The Boston wholesale quotation tends now to reflect top prices. Formerly premiums over the market were more common. Auction price reports usually give the extreme range in sale prices as well as the range in prices for bulk of sales. In this study reference is usually made to weighted average prices.
4. The Boston grade on Nearby Specials is not quite the same as the New Hampshire Special Grade.

	Minimum weight for individual eggs	Tolerance
Nearby Specials (Boston)	rate of 24 oz. per doz.	None
Specials, Large (N. H.)	rate of 23 oz. per doz.	(N.H. Law) 2 eggs per doz. (Auction) 10 eggs per case (if of next smaller size)

5. The auction prices are more sensitive than Boston wholesale quotations and thus move up or down more quickly.
6. Condition of the market influences prices paid as compared to quotations. When prices are dropping and the supply of eggs is large it is a "buyer's market" and purchasers often buy under quoted prices. If eggs are short in supply and prices are moving up it is a

"seller's market" and buyers are often forced to pay above quoted prices. In other words a quotation is an arbitrary and a stationary figure for a time. The market is constantly changing and actual sales occur at various prices which are continually changing.

Actual Returns Vs. Boston Wholesale Quotations

Reports were obtained from several producers who were shipping eggs to the Boston wholesale market and comparisons made between the actual returns which they received with top Boston wholesale quotations and with average auction returns on the same dates. (See Table 9.)

Table 9.— *Comparison of actual returns for eggs, all sizes, sold on the Boston Wholesale Market with estimated returns if sold at top Boston quotations and at average auction prices*

Date	Quantity (dozens)	Gross Returns			Net Returns		
		Actual (Boston market)	If sold at top Boston wholesale quotations (Est.)	If sold at average auction prices (Est.)	Actual (Boston market)	If sold at top Boston wholesale quotations (Est.)	If sold at average auction prices (Est.)
1934							
July	1791	31.9¢.	31.3¢.	35.2¢.	30.4¢.	29.7¢.	32.0¢.
August	1171	37.3	37.1	39.7	35.7	35.5	36.4
September	1687	33.5	34.0	39.2	31.9	32.3	34.0
October	860	33.8	34.2	39.4	32.4	32.5	36.5
November	525	33.8	36.0	35.3	32.1	34.3	32.4
December	2370	28.2	30.4	29.5	26.6	28.9	26.5
1935							
January	1584	31.8	34.0	33.7	30.2	32.5	30.6
Year 1935	2215	28.7	30.6	31.0	27.4	29.3	28.1

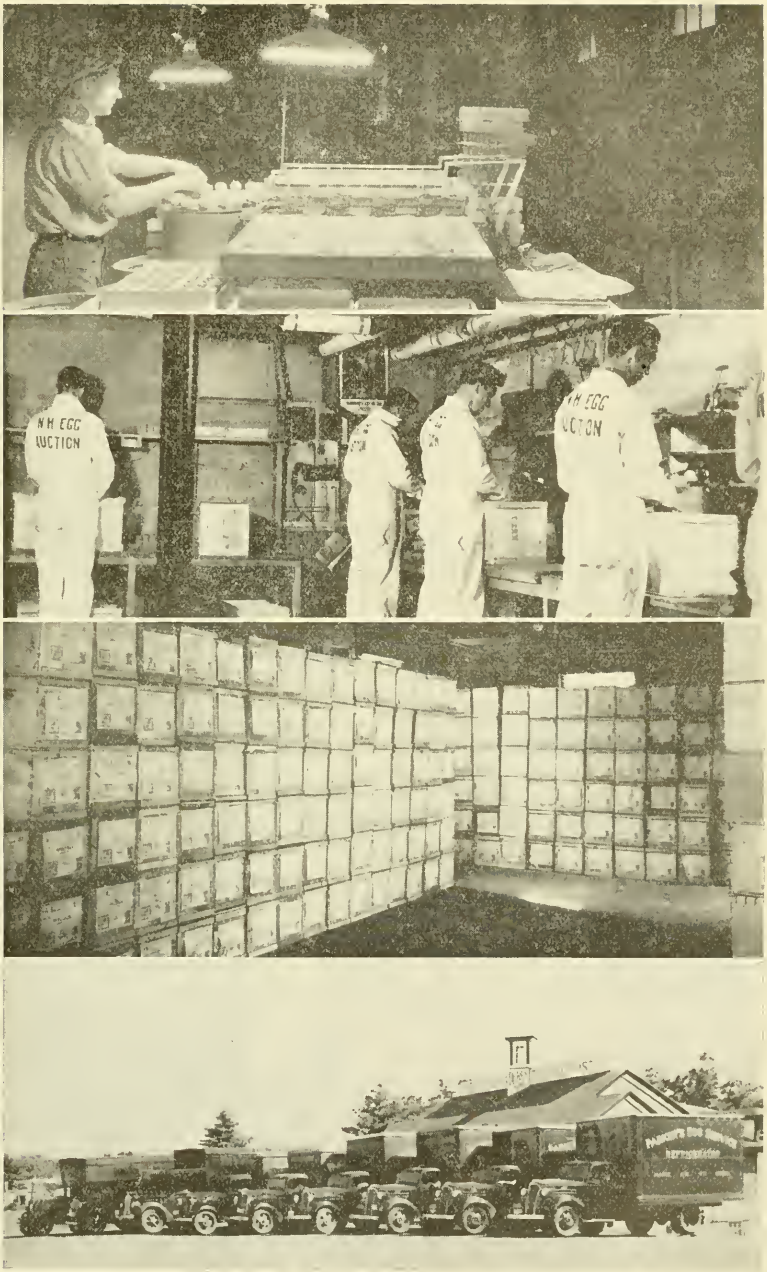
Actual average gross returns for all eggs in the last six months of 1934 were ¾ cents per dozen below Boston wholesale quotations and 3.3 cents below average auction returns. In 1935 average (weighted) gross returns for all eggs were 1.9 cents below Boston quotations and 2.3 cents below average auction prices.

These comparisons cover a small number of producers for the volume indicated and must be regarded as approximate only, since grades do not entirely correspond, since the same eggs might have been graded differently in Boston than at the auction and since net returns at Boston quotations and average auction prices are estimates.

High and Low Prices on Auction Sales

The price quotation that means most is one covering "bulk of sales". Far more producers receive the low prices on an auction sale than do those receiving the high price. There is no very definite limit to the peak prices but there is a fairly definite limit on the low prices. There are always buyers who will take almost any quantity of eggs "at a price". These bids for quantities are usually nearer the Boston wholesale price and they put a "floor" under the market.

Most of the eggs selling at top prices are heavy cases usually averaging from two to six pounds over those bringing the low prices. There



1. Many large producers now use machines in sizing eggs.
2. Auction candlers inspect at least 100 eggs in every case to determine grade.
3. Cases bear labels giving producer's number, weight and grade and are stacked in tiers ready for inspection of buyers before the sale.
4. A fleet of insulated trucks haul eggs to and from the auction.

are usually some exceptions due to bidding up on lighter cases of a much wanted producer number.

The average range between low and high prices for Special Grade Large Brown eggs was between four and five cents a dozen in four representative months.

(Table 10 gives some facts about eggs which bring the "highs" and "lows" in representative months.)

Table 10.—*Producers receiving highest and lowest prices on auction sales of Special Grade Large Brown eggs.*
(*With volume sold and average weights and prices.*)

Month	Prices	Number different producers	Number cases sold	Average weight	Average price
January, 1936	Highest	7	17	65.8	32.8
	Lowest	159	666	59.3	29.3
April, 1936	Highest	7	11	64.4	28.4
	Lowest	113	348	60.1	25.5
July, 1936	Highest	10	16	63	44.1
	Lowest	114	344	60.6	39.8
October, 1936	Highest	11	12	64	51.9
	Lowest	82	257	58.2	44.7

Prices Used by Producers

When a producer asks the price of eggs he usually refers to either the auction price or the Boston wholesale price for Special Grade Large Brown eggs, for these are the most common standards.

Actually he will sell several sizes of eggs every month in the year, and it is this composite price from which must be deducted such selling costs as he may have.

Composite price of all sizes of eggs can be roughly determined by taking specific percentages of the prices of large eggs.

The composite price of all four sizes of eggs seems to follow fairly closely a certain percentage of the weighted average prices of Special Grade Large Brown eggs, based on auction supplies and returns. The actual return from all sizes varies from a low of about 67 per cent (in September) to about 99 per cent (in Jan.-Feb.) of the weighted average for Special Grade, Large.

Assuming the auction figures to be representative since they cover a large volume of eggs coming from hundreds of producers, we might use such figures as a method of roughly determining the actual average gross price received by producers. (Prices and percentages for each month are given in Table 11.)

It is interesting to note that whereas the price of Special Grade Large Brown eggs is 13.3 cents per dozen higher in October than in February the composite price is only 0.8 cents higher in the latter month.

TABLE 11. *Weighted average prices of top quality brown eggs of large sizes compared with the average price of all sizes*

Month 1935-1936	Weighted average* price—Special Grade Large Brown	Weighted average* price—four sizes Brown	Percentage composite price is of the price of Specials, Large
November	40.1	35.1	87.6
December	32.6	31.	94.9
January	30.1	29.1	96.4
February	34.5	34.	98.6
March	27.9	27.5	98.4
April	26.0	25.4	97.5
May	27.0	26.3	97.2
June	32.5	31.	95.4
July	41.2	35.6	86.4
August	42.4	31.9	75.2
September	46.1	31.1	67.5
October	47.8	34.8	72.8

*Weighted average prices refer to those weighted according to the quantity of eggs sold at each price on each sale date.

Figures represent gross prices and deductions for losses from cracked and lower grade eggs and the expense of grading, packing, shipping, and selling have not been made.

Volume of White and Brown Eggs

The volume of white eggs sold on the auction is very small compared to that of brown eggs. The percentage of browns, whites, and mixed or tinted eggs over a two-year period was as follows:

	July, 1934—June, 1935	July, 1935—June, 1936
Browns	95.9%	95.5%
Whites	3.9%	3.1%
Mixed and Tints	.2%	1.4%

Since the figures of the New England Crop Reporting Service show 7.1 per cent *white leghorns* in the State, it appears that the quantity of white eggs coming into the auction is only about half as great as the percentage of Leghorns.

Color of Eggs as Related to Price

Special Grade Large Brown eggs on the New Hampshire Egg Auction during the two-year period 1935 and 1936 averaged 48 cents a case more than the same grade of white eggs. The average premium was slightly higher in 1935 (54 cents a case) than in 1936 (42 cents a case). Highest premiums were paid in August in all three years.

Some of the irregularity in average premiums paid is due to the very small volume of white eggs sold on some dates. Only a few auction buyers want white eggs, and if they are not present to bid the whites go at a larger discount. On some occasions they bid up to the brown price. Prices of brown and white eggs of exactly the same weights and for the

same dates were compared for July, October, January, and April in 1934-1935 and 1935-1936. The premiums for browns averaged 1.6 cents per dozen for the first year and 1.4 cents for the second year. (see Fig. 7). The market for white eggs at the brown price is still very limited. Producers of white eggs in so far as possible should seek special outlets among those who do not discriminate on color.

WEIGHTS OF EGGS

The average monthly weights of large size eggs sold on the auction varied from 59.5 to 61.7 pounds gross weight per case in 1935 and from 59 pounds to 61.3 pounds in 1936.

The heaviest weights were received in August, the lightest weights in November. (See Table 12 for weights for each month—two-year period.)

Average Monthly Premiums in Cents per Dozen for Special Grade Large Brown Eggs over Special Grade Large White Eggs for Same Weights and on Same Sale Dates —New Hampshire Egg Auction (Representative Months, 1935 and 1936)

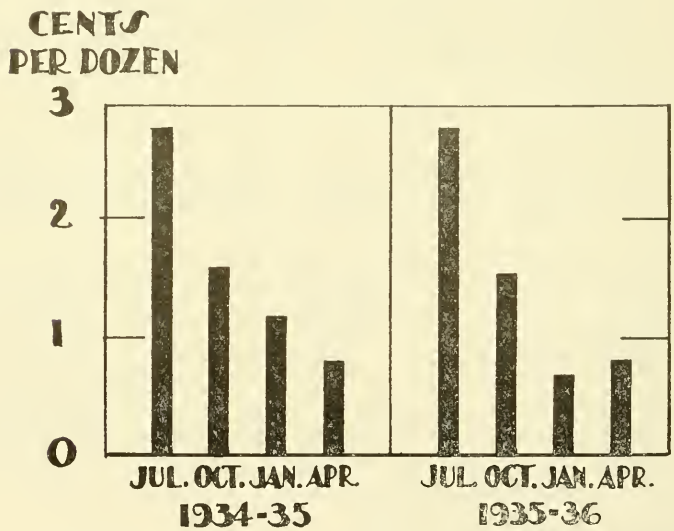


Figure 7. The average premium on brown over white eggs was 1.8 cents per dozen in 1935 and 1.4 cents in 1936. Lowest premiums are usually obtained in the winter or spring months, and highest premiums in July, August, and September.

Nearly Two-Thirds of All Eggs Are of Large Size

For the two years ending June 30, 1936, the average percentage of each size of egg sold on the auction was as follows:

Large	63.3%	Pullet	10.2%
Medium	23.1%	Peewees	3.4%

Sixty-Pound Cases Most Common Size

In the four representative months of July, October, January, and April, 1935-1936, the weights of eggs which occurred most frequently in each of the four size groups were—

Large Size—60 lbs. gross wgt. per case—25.6 oz. av. net wgt. per doz.
Medium Size—54 lbs. gross wgt. per case—22.4 oz. av. net wgt. per doz.
Pullet Size—50 lbs. gross wgt. per case—20.3 oz. av. net wgt. per doz.
Peewee Size—46 lbs. gross wgt. per case—18.1 oz. av. net wgt. per doz.

During these four months (based on net weights of cases)—

34.6% of all eggs were between 16 oz. and 22.9 oz. per dozen
33.2% of all eggs were between 23.2 oz. and 25.6 oz. per dozen
32.2% of all eggs were between 25.9 oz. and 32.5 oz. per dozen

These figures exclude double yolk eggs which really belong in the heavier group. We may then say that about one-third of all the eggs weigh 26 ounces or more net weight per dozen.

Considering the size of this group it appears that it should receive more recognition in the market.

TABLE 12.—*Average gross weights for cases of Special Grade Large Brown eggs sold on the N. H. Egg Auction in 1935 and 1936.*

	Gross weights of cases in pounds	
	1935	1936
January	60.5	59.8
February	60.8	60.3
March	61.	60.7
April	61.	60.7
May	61.2	60.6
June	61.4	61.
July	61.5	61.2
August	61.7	61.3
September	61.6	61.1
October	60.3	59.5
November	59.5	59.
December	59.6	60.1
Average	60.8	60.4

Large size eggs include a much greater weight range than any of the other sizes and run from 57 pounds gross weight per case on up, with the greatest number of cases weighing 60 pounds.

A good deal of interest has been shown in establishing a "very large" size in order to get greater recognition and more money for the extra heavy cases. The recent establishment by the auction of a "very large" size starting at 28 ounces per dozen has been largely to reduce breakage, to improve the appearance of the pack, and to encourage a premium for them.

There is, of course, a question where the line should be drawn for an official "very large" size to bring the greatest total return.

Several groupings within the large size are made here in order to show percentages of eggs that would fall in various size groups. The

first two have been divided as nearly as possible into two and three equal divisions, the third is an arbitrary grouping, and the fourth includes the auction grouping now used. Figures refer to gross weights of cases for all Special Grade Large Brown eggs.

First grouping*	57—60 pounds 47.6%		60½ pounds and up 52.4%
Second grouping*	57—59½ pounds 31.4%	60—60½ pounds 29.3%	61 pounds and up 39.3%
Third grouping†	57—59½ pounds 28%	60—62½ pounds 61.2%	63 pounds and up 10.8%
Fourth grouping*	57—64 pounds (24—27½ oz. net per dozen) 99.1%		64.5 pounds and up (28 oz. net per doz. and over) .9%

*Based on figures for July, October, January, April, 1935-1936.
†Based on two-year average 1934-1935 and 1935-1936.

Eggs Weighing 26 Ounces or Over per Dozen Form Important Group

About 25 per cent of all eggs sold on the New Hampshire Egg Auction average at least 26 ounces net per dozen as compared to about 23 per cent of medium size, 10 per cent of pullet size, and 3½ per cent of peewee size eggs. Thus this group of very large eggs is more important than any of the three smaller sizes which have been "officially recognized" in standpoint of size and the range in weights which it covers.

It seems unreasonable to recognize a peewee group as a market grade when it constitutes only about 3½ per cent of all eggs sold and ignore a very large group which constitutes 25 per cent of all eggs sold.

The grouping under our present grades is as follows:

Official Size	Weights of individual eggs allowed (rate per doz.) Net weight in ounces	Min. net weight per dozen (ounces)	Approximate per cent of all eggs coming in this group
Large	23 and up	24	63.5
Medium	21—23½	21½	23.
Pullet	19—21	19	10.
Peewee	Under 19		3.5
			100%

What appears to be a more practical grouping could be made without increasing the number of sizes by combining peewees and pullets into one size group called small and creating a very large group as follows:

Size	Weights of individual eggs allowed (rate per doz.) Net weight in ounces	Min. and max. net weight per doz. (ounces)	Approximate per cent of all eggs coming in the group
Very large	26 and up	26 and up	25.
Large	23—26	24—25½	38.5
Medium	21—23	21½—23½	23.
Small	21 and under	21 and under	13.5

The "very large" classification can, of course, be made smaller by moving the minimum size to 26½ or 27 ounces per dozen, in which case this group would contain either 16 or 11 per cent of all eggs.

If double yolk eggs were added to the largest size they would increase the percentage about 0.8 per cent.

Weights of Eggs as Related to Prices

The prices of the different sizes of eggs vary greatly during the period from July to October, inclusive. These differences are smallest in February and March. (See Figs. 8 and 9.)

Double Yolk Eggs Sell at Premium

The quantity of brown double yolk eggs sold on the Auction is not great, usually running under 100 cases per month, but their sale creates a good deal of interest. The demand for them is usually good, and in the price decline from October to December double yolk eggs drop less than half as much as do large eggs. In fact in the last three months of 1936, when the volume of double yolk eggs was running from 65 to 100 cases a month, there was practically no decline in the price, although large eggs dropped 14¢ a dozen.

Since double yolk and abnormally large eggs have often been difficult to move at a satisfactory premium in the past, producers are glad to have a good outlet for them. (See Table 13.)

Prices Received for Large (Specials), Medium (Specials), Pullet and Peewee Brown Eggs—New Hampshire Egg Auction, 1936
(Prices per dozen—weighted averages)

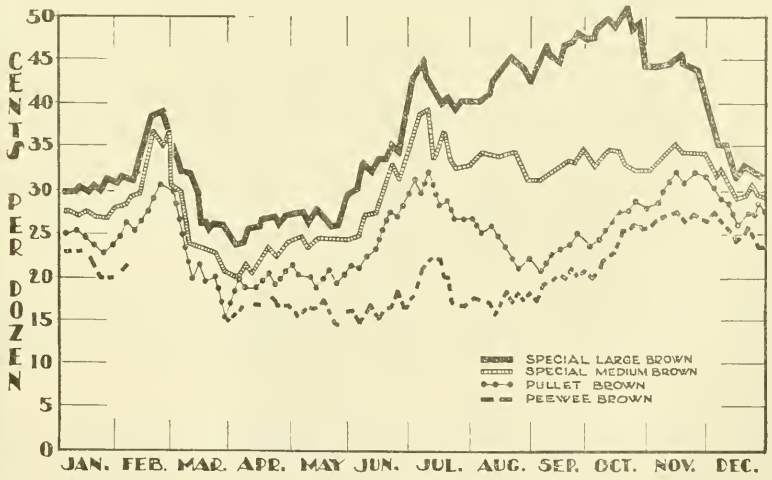


FIGURE 8. During those months when the volume of the smaller sizes of eggs is large, the prices of those sizes are considerably lower than those of the large sizes; but when the volume is down, the prices approach those of large because of a continued demand for small sizes.

Premiums for Heavy Cases of Large Eggs

Premiums paid for heavy cases of Special Grade Large Brown eggs were as follows:

	Premiums Paid in Cents per Dozen	
	Largest size (63 lbs. and up) over Smallest size (57-59½ lbs.)	"Medium" size (60-62½ lbs.) over Smallest size (57-59½ lbs.)
1934-1935	1.5 cents per doz.	.8 cents per doz.
1935-1936	1.8 cents per doz.	.5 cents per doz.

Although the heavier cases do bring more money on a dozen or case basis, they bring less money on a pound basis. Premiums for the smaller size large eggs over the largest size large eggs are shown by weight below:

	Premiums Paid in Cents per Pound	
	Smallest size (57-59½ lbs.) over Largest size (63 lbs. and up)	"Medium" size (60-62½ lbs.) over Largest size (63 lbs. and up)
1934-1935	1.2 cents per lb.	.8 cents per lb.
1935-1936	1.3 cents per lb.	.6 cents per lb.

Actual vs. Theoretical Premiums on Largest Sizes

The heaviest weights of large size eggs do bring more per case but not as much per pound. The average monthly premium per case on the largest size (63 pounds and up) was 44 cents a case over the smallest size (57-59½ pounds). Yet if the largest size had brought the same price per pound it would have brought $1.06 per case premium. The actual premium averaged only 41 per cent of this amount.

From a practical standpoint it seems rather inconsistent for eggs which weigh 25 ounces per dozen to sell for more per pound than either 27-ounce or 23-ounce eggs. The eggs averaging 23 oz. per dozen must be sold as medium size eggs, and the consumer expects to pay considerably less for them at most periods in the year. But the 27-ounce eggs are sold to the consumer in the same size group as the 25-ounce eggs, and it is very doubtful whether consumers appreciate the differences in value to the full extent. Two different motives may exist with consumer purchases of eggs of different sizes, namely: (a) quantity for the money; (b) purchase for specific uses.

The best class of trade demands large size eggs and does pay more per dozen for them. The fact that the general public does not pay as much per pound may be partly due to lack of information as to comparative values.

There are very few of the two smaller sizes from January to May inclusive, and so they are of little real interest. The differences between the large and smaller sizes in some months are so small as to make any saving per pound unattractive when other factors are considered. Viewing values from a practical standpoint we may say that the following sizes are the best buys as indicated:

Peewees—June, July, August. Mediums—November.
Pullets—September, October. Large—December-May (inclusive)

(See Figs. 8 and 9 for per dozen and per pound, values of the different sizes in 1936).

Prices Received for Large (Specials), Medium (Specials), Pullet and Peewee Brown Eggs—New Hampshire Egg Auction, 1936
(Price per pound—weighted averages)

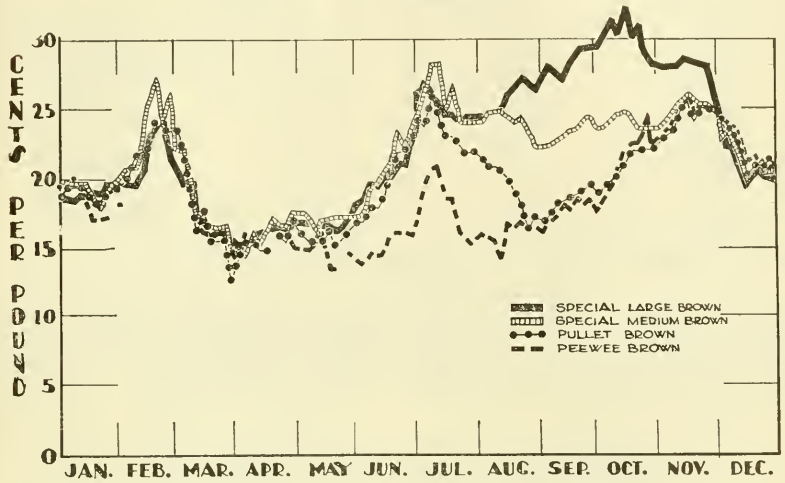


FIGURE 9. The price per pound of all sizes of eggs is very near the same in the period Nov. 15—May 15, but in the period July to October, Large and Medium sizes are much higher than Pullets and Peewees.

TABLE 13.—*Premiums on Double Yolk Brown over Special Grade Large Brown eggs N. H. Egg Auction—1935 and 1936*

(Premiums based on simple monthly averages of weighted averages for same sale dates)

	1935				1936			
	No. cases double yolk included	Average prices		Premium over Large	No. cases double yolk included	Average prices		Premium over Large
		Double yolk	Large			Double yolk	Large	
		(cents)	(cents)	(cents)		(cents)	(cents)	(cents)
Jan.	10	51	33.8	17.2	42	45.6	30.1	15.5
Feb.	2	48.6	34.6	14	13	47.6	34.6	13
March	4	46.3	27.5	18.8	7	51.3	25.9	25.4
April	3	41.1	27.3	13.8	7	44.1	26	18.1
May	2	41.1	29.8	11.3	4	44.4	27.1	17.3
June	.....	.....	.....	.....	2	44.5	32.9	11.6
July	3	45.2	40.1	5.1	5	46.1	41.4	4.7
Aug.	11	50.5	45.4	5.1	15	48.6	42.6	6
Sept.	29	50.1	45.4	4.7	62	50.8	46.1	4.7
Oct.	35	55.1	48.8	6.3	98	55.6	48	7.6
Nov.	30	52	40.5	11.5	101	56.6	44	12.6
Dec.	41	48	32.8	15.2	67	55.3	33.6	21.7

Periods of "Greatest Values" on Different Sizes

On the basis of price per pound, certain sizes represent better values than others in the different months as sold on the New Hampshire Egg Auction. The sizes which show best values for the money for each month are shown in the following columns. The figures represent "savings" or "losses" in cents per pound when comparisons are made with the values of large size eggs.

1936	Best value	Second best value	Third best value	Lowest value
Jan.	Peewee (.7)	Pullet (.03)	Large	Medium (— .3)
Mar.	Large	Pullet (—.08)	Peewee (—.1)	Medium (—. 6)
May	Peewee (2.)	Pullet (1.)	Large	Medium (— .5)
July	Peewee (7.1)	Pullet (1.7)	Large	Medium (— .5)
Sept.	Peewee (10.5)	Pullet (9.9)	Medium (5.1)	Large
Nov.	Pullet (3.9)	Peewee (3.6)	Medium (3.5)	Large

Price per Pound and Price per Dozen

Prices per dozen and prices per pound for the top grade eggs of each size were worked out for four representative months in 1936, namely, January, April, July, and October. Some interesting price variations occur within and between grades. (See Figs. 10 and 11).

Price per Dozen and Price per Pound† of Large*, Medium*, Pullet and Peewee Brown Eggs with Volume of All Weights Sold— New Hampshire Egg Auction, April, 1936

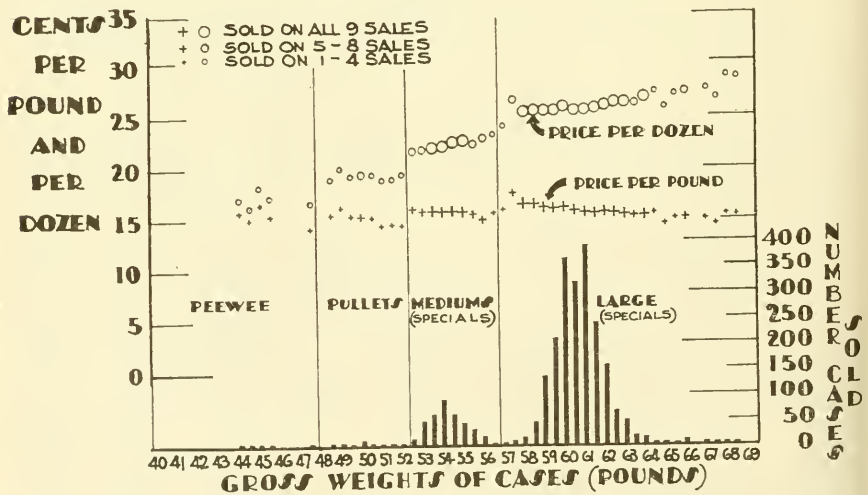


FIGURE 10. The change in price per dozen between grades is small as are increases within the grades.

*(Specials)

†Per pound net weight

GRADES OF EGGS

About 59 Per Cent of All Brown Eggs Are Specials, Large

The percentage of eggs in the principal grades of brown eggs for 1934-1935 and 1935-1936 as sold on the New Hampshire Egg Auction are indicated below in Table 14. (Monthly averages.)

TABLE 14. *Percentage of the principal grades of eggs sold on the New Hampshire Egg Auction over a two-year period*

	1934-1935	1935-1936
Large size (Special grade)	59.1	58.4
Medium size (Special grade)	16.8	18.7
Pullets	9.6	9.
Peewees	3.6	4.3
Extras	3.	2.9
Producer's grade	5.9	4.6
Double yolk	1.	.6
Miscellaneous*	1.0	1.5

*Includes dirties, poor shells, undergrades, and culls.

(See Fig. 12 for percentages 1934-1936 inclusive).

Price per Dozen and Price per Pound of Large*, Medium*, Pullet and Peewee Brown Eggs
(With volume of all weights sold—New Hampshire Egg Auction, October, 1936)
*(Specials)

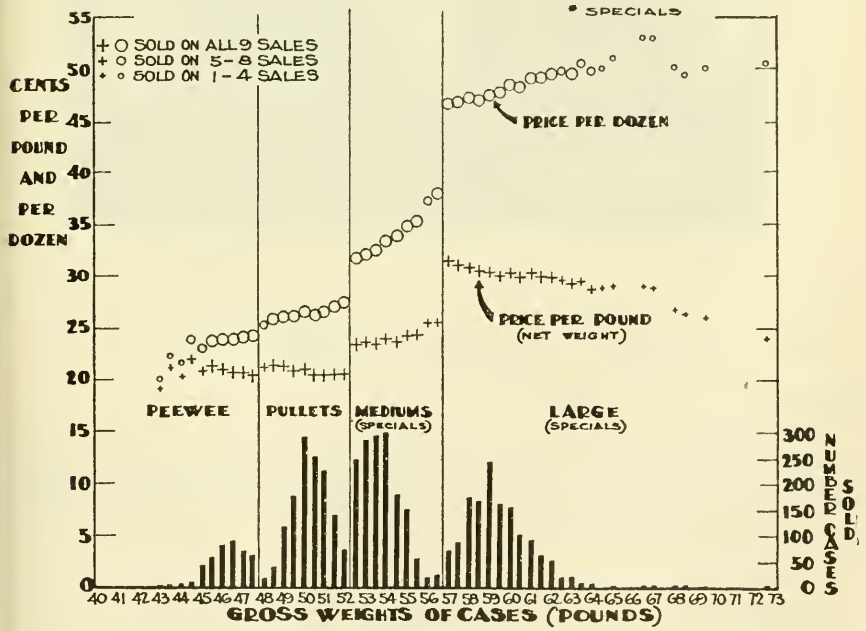


FIGURE 11. The price between grades is especially large between medium and large sizes. A rise in price per dozen within the grade occurs and this is especially sharp in the medium size. Changes in price per pound within grades are variable.

The percentages that four important grades are of all brown eggs sold on the New Hampshire Egg Auction over a 30-month period are shown as follows.

Period July, 1934—December, 1936

	Smallest percentage in any month	Largest percentage in any month	Average percentage, 2 yrs. 1935 and 1936
Large (Specials)	25.3 (Sept., 1936)	80.9 (May, 1935)	59.1
Mediums (Specials)	6.8 (July, 1934)	32.9 (Nov., 1935)	18.
Pullets	.7 (May, 1935)	30.7 (Sept., 1936)	9.5
Peewees	None (Feb. & Mar., 1935)	15.9 (Aug., 1936)	4.

Percentages of the Various Grades of Brown Eggs that Constituted the Volume on the New Hampshire Egg Auction June, 1934—December, 1936

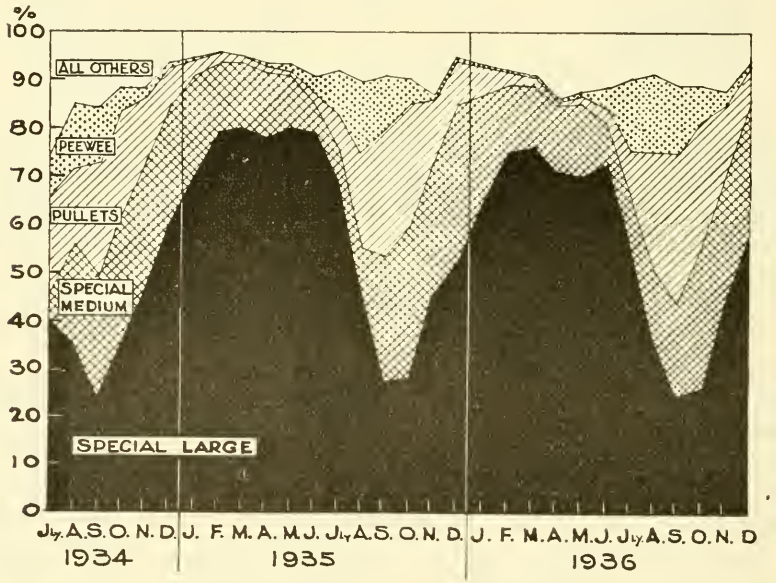


Figure 12. Percentages of the principal grades were about the same in 1935 and 1936. The peak volume of Peewees is reached in August, Pullets in September, and Mediums in November.

October Is Quality Month

An analysis was made of the candling sheets of all producers sending eggs to the New Hampshire Egg Auction for the year ending June 30, 1935, to determine the number of individual eggs grading as specials in all cases of Large Brown Specials and Extras.

Individual Eggs Which Graded as Specials

(Percentage)

July	86.7	October	90.1	January	87.1	April	87.1
August	86.9	November	88.9	February	87.4	May	86.9
September	89.4	December	87.3	March	86.8	June	86.0

The percentage grading Specials ranged from 86 per cent in June to 90.1 per cent in October. The tolerance allows up to 20 per cent of Extras in cases of New Hampshire Specials. Where cases run over 20 per cent Extras they are sometimes sold with a statement of the percentage of Specials as—New Hampshire Extras (75 per cent Specials). This indicates that though sold as second grade or Extras they contain a high percentage of Specials.

(See Table A2, Appendix.)

Fewest Meat and Blood Spots in March

An analysis of all individual candling records covering cases of Large Brown Specials and Extras for the 1934-1935 year indicated fewest meat and blood spots in March (.22 of 1 per cent) and the greatest number in August (.85 of 1 per cent).

There were fewest undergrades in March (.29 of 1 per cent) and the largest number in September (.74 of 1 per cent).

More bad eggs were found in June (.1 of 1 per cent) than any other month, and fewer in January (.02 of 1 per cent). (See Table A2, Appendix.)

August High Month for Cracked Eggs

An analysis of all records for individual producers indicates that the number of cracked and dented eggs per case found in cases of Large Brown Specials and Extras ranged from .3 egg in December to 1.7 eggs in June.

The number of leakers per case ranged from .1 in January to .5 in July and August. (See Table A2, Appendix).

The number of cracked and broken eggs is largest when the average size is greatest and decreases in the months when the average size is small.

The number of cracked eggs and leakers can be reduced by:

1. Building up of cases when large sizes are shipped.
2. Careful elimination of thin shelled eggs.
3. Use of good flats and fillers.
4. Use of double flats or pads at top and bottom of cases.

GRADES OF EGGS AS RELATED TO PRICES

Prices for Specials, Large, Reach Peak in October

Prices on eggs usually start rising in June, often hold steady in August and September and reach a peak in October or early November. A sharp break usually occurs the latter part of November and early December.

The greatest disparity between Auction prices and the Boston wholesale quotations has occurred during this rise, and auction prices of Specials, Large, have sometimes averaged as much as 4—6 cents over the Boston wholesale quotations. In the sharp break in December and in the spring, auction prices sometimes average under quotations.

(See Fig. 6 for auction prices, Boston wholesale quotations and volume of Specials, Large Brown in 1936).

Average Monthly Premiums Paid in Cents per Dozen for New Hampshire Specials (Large Brown) over New Hampshire Extras (Large Brown)
(New Hampshire Egg Auction—1934-1935 and 1935-1936)

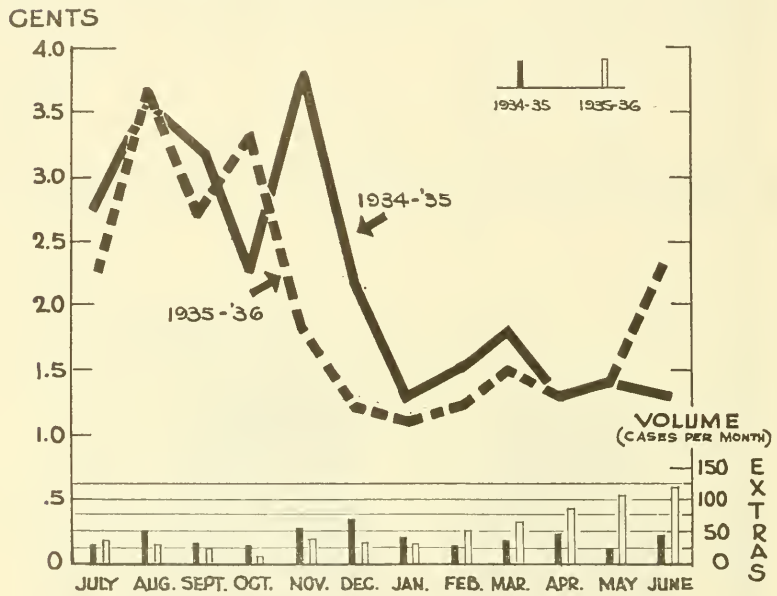


FIGURE 13. Premiums for quality are much higher in the late summer and fall months than in the winter and spring. Extras, themselves, are good quality eggs as the market knows them.

Specials Bring Sixty Cents a Case More Than Extras

The average premium for Specials (Large Brown) over Extras (Large Brown) during the first twelve months of the New Hampshire Egg Auction was 2.1 cents per dozen or 63 cents a case. In the second twelve months the premium was 1.9 cents a dozen or 57 cents a case.

These premiums ranged from 34 cents to $1.12 a case over a two-year period and were highest in August and lowest in January.

(See Fig. 13 for monthly premiums for a two-year period).

It appears that these premiums are sufficient to warrant considerable attention to the handling and storage of fresh eggs. The increased use of wire baskets for collection and cooling of eggs, the provision of egg rooms which will hold temperature below 60° F., and shipment of eggs at least twice a week are desirable and practicable in maintaining the special grade.

Some hens lay "extra" quality eggs. Therefore, regardless of how carefully eggs are handled there will be some eggs of that quality. But careful handling will usually prevent the number of extras exceeding the tolerance allowed in the Special grade, namely, a maximum of 20 per cent.

Average Monthly Premiums Paid for Special Grade (Large Brown) Over Producer's Grade (Large Brown) (N. H. Egg Auction, 1934-1935 and 1935-1936)

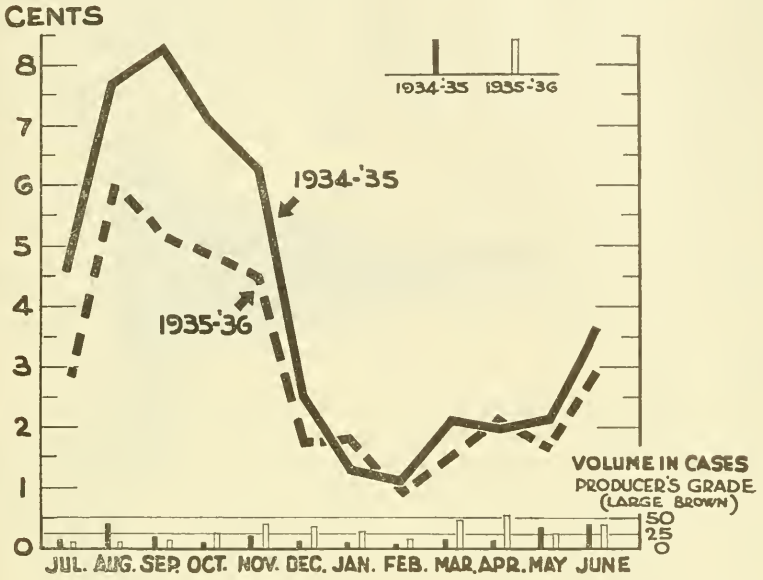


FIGURE 14. Graded eggs bring a very much higher premium in August and September than in January and February. Producer's grade (Large) runs somewhat lighter in weight than Specials (Large) due to inclusion of smaller sizes.

To approach perfection in the percentage of specials would require trapnesting and candling of eggs to permit elimination of hens which tend to lay low quality eggs.

Premiums for Grading Highest in August and September

Average monthly premiums paid for Special Grade Large Brown eggs over Producer's Grade (Unclassified) Large Brown eggs on the auction varied and averaged as follows for the two years ending June 30, 1936.

Range in Premiums in Cents per Dozen

	Low	High	Average
1934-1935	1.1¢ (Feb.)	8.3¢ (Sept.)	4.1¢
1935-1936	.9¢ (Feb.)	6. ¢ (Aug.)	3. ¢

(See Fig. 14 for monthly average premiums over a 2-year period.)

Since Producer's Grade Large eggs contain smaller sizes the average weights are low. Part of this difference in price is due to weight as is shown in the following comparisons.

Premiums for Special Large over Producer's Grade Large

Month	As sold	For the same weights
July, 1935	2.4¢ per dozen	2.1¢ per dozen
October, 1935	4.9¢ per dozen	4.3¢ per dozen
January, 1936	1.8¢ per dozen	1.4¢ per dozen
April, 1936	2.1¢ per dozen	1.8¢ per dozen

It undoubtedly pays to grade carefully enough to prevent eggs being classed as Producer's Grade (Unclassified) during the months of June to November when the average premiums are large ($1.44 per case—two-year average), but it may not always pay in the period December to May when the premiums are much smaller (51 cents per case—two-year average). The actual premium is less than it appears since the smaller size eggs included in Producer's Large Grade would bring a considerably lower price if sold in their proper grade. The larger eggs included would, of course, have brought more if they had been sold in their proper classification.

The premium for eggs graded as to size over Producer's Grade is definite evidence that in wholesale markets the size of individual eggs is an important factor.

Probably some of the difficulty on size of individual eggs is experienced by small producers who have such a small volume that grading as to size is impractical. Such eggs should, of course, be sold as unclassified. Retail stores obtain a good many of their eggs from such small producers.

It would simplify grading procedure to eliminate the tolerance for individual eggs in the smaller sizes and to retain the weight per dozen requirement. Those who purchase eggs under 24 ounces per dozen are especially interested in price, and individual size is of less importance to them than pounds of eggs per dollar expended. Consumer grades should always be as simple as possible and need not cover as much ground as wholesale grades.

OTHER VARIATIONS IN PRICES ON AUCTION SALES

Prices Received by Individual Producers

When average prices received for Special and Extra Grade Large Brown eggs were weighted by the number of sales made, fewer producers (47 per cent) received prices above average than below average (53 per cent). During the 1934-1935 year 83 per cent of the producers received within 1 cent of the average price for all producers on comparative sale dates.

(See Fig. 15 for distribution of producers receiving prices above and below average).

It appears that the 25 per cent who received prices of one-half cent or more below the average should attempt to determine the reasons for these lower prices. Light weight cases and a high percentage of extras are the most frequent causes of lower prices but there are other factors which enter into the picture such as regularity and period of sale, uniformity of size and color, and interior quality.

Variations in Prices for Same Grade and Weight

A comparison was made of the average prices received from the auction by individual producers with the average for eggs of the same grade and weight for all producers in October, 1935. It was found that about 35 per cent received prices above average, and 57 per cent obtained prices below average. The smaller group sold more cases on more sales.

Approximate Variation in the Average Prices of Individual Producers for Special and Extras (Large Brown) from the Averages for All Producers for Eggs of the Same Grades on the Same Sale Dates (N. H. Egg Auction—July, 1934—June, 1935)

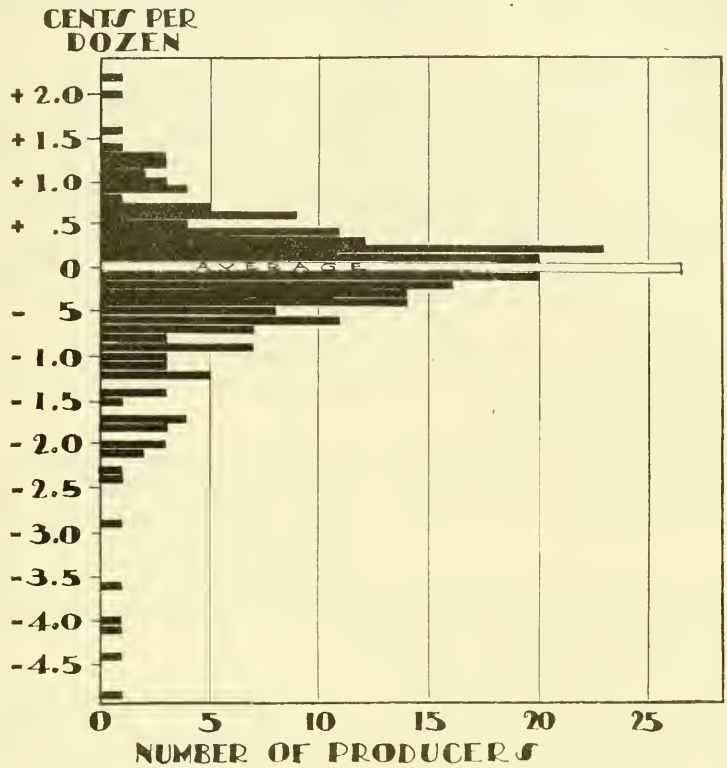


FIGURE 15. The bulk of the sales made were within 1.5 cents above and 2 cents below the average. Fewer producers are included in the group above the average because they sold more eggs on more sales.

Purchases in Person Vs. Through the House

Purchases of Special Grade Large Brown eggs in the months of October, 1934 and 1935, on auction sales indicate that buyers making purchases in person bought heavier eggs at slightly higher prices than did persons bidding through the house.

		No. cases bought	Av. gross wt. in lbs.	Av. price cents per doz.
Eggs bought through the House†	Oct., 1934	270	59.4	48.4
Eggs bought in person	Oct., 1934	299	60	48.4
Eggs bought through the House	Oct., 1935	426	59.6	48.2
Eggs bought in person	Oct., 1935	275	61.1	49.9

†Refers to mail or telephone bids

It appears that buyers who purchase in person are somewhat more particular concerning weight of the eggs bought and are willing to bid a little higher in order to get those weights. Such buyers, therefore, render a distinct service in maintaining the premium on the heavier weight eggs.

Old Producer Members Have Slight Price Advantage

Comparisons were made on the returns for producers who had been members of the auction for (1) two years or longer; (2) one year or more but under two years; and (3) less than one year. The comparisons were made on Specials (Large Brown) between average prices of eggs for exactly the same weights and dates in August, 1936.

The oldest member group (1) received an average of 3.3 cents a case more than the youngest member group (3) and 2.8 cents a case more than the second oldest group (2), which held membership from one up to two years.

It appears that the length of time membership has been held had little relationship to the prices received during the month of August.

"On Sale" Vs. "Off Sale"

"On sale" prices exceeded "off sale" prices in 1935 by 2.7¢ per case and in 1936 by .3¢ per case.

"On sale" weights exceeded "off sale" weights in 1935 by .33 lbs. per case and in 1936 by .29 lbs. per case.

Purchasers buying "on sale" are paying practically the same for eggs but are, quite properly, getting some advantage in slightly heavier weights than "off sale" purchasers.

First Sales Bring Higher Prices

Sales of eggs at the beginning of an auction sale bring on the average slightly more than at the end of the sale period.

Direct comparisons were made between the average prices of specific weights of eggs on the first ten sales with the averages of the same weights on the last ten sales. Sales of Specials (Large Brown) were used.

	July 1935	Oct. 1935	Jan. 1936	Apr. 1936	Four Months
Premiums per dozen first ten sales over last ten sales	$0.0015	$0.0027	$0.0019	$0.0012	$0.0018
Number times higher	27	24	16	27	94
Number times lower	18	15	1	8	42
Number times the same	5	1	16	4	26
Number comparisons made	50	40	33	39	162

RETAIL SALES OF EGGS UNDER THE NEW HAMPSHIRE FRESH EGG LAW

Improvement in Correct Marking of Sizes

The New Hampshire Egg Auction has marked the grades and gross weights on all cases of eggs sold since it started operation in June,

1934. This was one factor leading up to the New Hampshire Fresh Egg Law (effective July 1, 1935) which required that all sizes of both retail and wholesale eggs be marked. A check was made on newspaper advertisements of retail eggs beginning in July, 1935, and continuing for a year.

Of the 941 advertisements checked for the year, 37 per cent did not state size along with price as required by law. However, much improvement has been made. In July and August, 1935, only 20-25 per cent of the advertisements for sale of eggs stated size. In May and June, 1936, 83-85 per cent stated size.

An analysis of the advertisements (1935-36) showed that 37 per cent did not state size, 31 per cent were on large size eggs, 23 per cent on medium size eggs, 4 per cent on pullet eggs, and 5 per cent on unclassified eggs. Since many of those which did not state size were for cheap eggs we may say that in general the advertisements feature eggs selling below the average retail price.

TABLE 15.— *Percentage of inspected eggs meeting legal requirements as to dozen and individual weights*

	Large	Mediums	Pullet	All three sizes	
				Weighted average	Simple average
Total dozens examined	700	262	56	1018 (Total)	
Percentage of dozens of legal weight for both individual eggs and dozen averages	91.0	89.3	67.8	89.3	82.7
Percentage of dozens underweight	4.7	5.3	14.3	5.4	8.1
Percentage of dozens with individual eggs exceeding tolerance	8.4	10.3	26.8	9.9	15.2
Percentage not meeting legal weight requirements	9.0	10.7	32.2	10.7	17.3

Few Underweight Large Eggs Sold by Retail Stores

Inspections made by the State Department of Agriculture in 88 New Hampshire towns and cities are shown in Table 15.

It is evident that the smaller sizes are less well marked as to size than the large eggs. There are about twice as many cases where the tolerance is exceeded on individual eggs in the dozen as where the dozen lots are underweight.

From a practical standpoint the weight of the dozen seems more important than the fact that a few individual eggs are under or over size. There are, of course, cases where the uniformity of size is important. A restaurant or hotel would not wish to have eggs that varied conspicuously in size on the plates of patrons, for dissatisfaction is created. Also a dozen or case of eggs which is uniform in size is more attractive

to the eye of the purchaser. The housewife may also prefer eggs of uniform size to use in recipes.

Few Unclassified Fresh Eggs Sold

Of 1068 dozens of "fresh" eggs inspected by the Department of Agriculture in 88 New Hampshire towns only 4.7 per cent were sold as unclassified. Of these, 66.7 per cent averaged large in size, 32 per cent were mediums, and 1.3 per cent were pullets.

Under the law all eggs must be marked as to size; namely, Large, Medium, Pullet, Peewee, or Unclassified. The unclassified size was established to take care of producers who had too small a volume to separate eggs into the regular sizes. However, some of the western eggs coming into the state are so poorly graded as to size as to require sale as unclassified.

"Strictly Fresh" Most Used Descriptive Term

An analysis was made of terms used in advertising eggs in newspapers in various cities of the state after July 1, 1935, when New Hampshire's Fresh Egg Law went into effect. The following terms other than those designating size were most frequently used:

Strictly fresh	121
Brand names	54
Native	51
Fresh	48
Strictly fresh native	39
Native fresh	39
Native brown	36
(Brand name) Guaranteed	35
Guaranteed	31
(Brand name) Selected	27
Western guaranteed	21
Selected guaranteed	21
(Brand name) Every one guaranteed	20
Fresh western	19
(Brand name) Selected and guaranteed	19
Selected	17
Fresh western unclassified	16
Local fresh	12
From our own farm—fresh daily	10
Cooking	9
Near-by	9
(Brand name) All new arrivals	7
Cold storage unclassified	7
Fancy selected	6
Native farm—3 days old	6
(Brand name) Carefully selected	6
(Brand name) Table	6
Native brown—Not over 3 days old	5
Fresh country	5

(Brand name) Everyone candled and guaranteed	5
Western	4
New arrivals	4
Cold storage	4
(Brand name) Cold storage	4
22 other different terms	32

It is interesting to note that "strictly fresh" is the most common term. It was the purpose of the New Hampshire fresh egg law to give real meaning to this term.

Differentials between Retail Prices in New Hampshire and Boston Wholesale Quotations

The average prices of the various sizes of fresh eggs sold in New Hampshire stores ranged from 5.4 cents to 7.6 cents per dozen above Boston Wholesale Quotations for eggs of similar grades on the same sale dates. All sizes averaged 6.6 cents per dozen above Boston Wholesale Quotations.

Year 1936	Number prices included in sample	Size	Margins over Boston wholesale quotations
	766	Fresh Large, Brown	6.4¢ per dozen
	355	Fresh Mediums, Brown	7.6¢ per dozen
	111	Fresh Pullets, Brown	6.8¢ per dozen
	131	Unclassified	6.6¢ per dozen
	1363	All sizes	6.6¢ per dozen

It appears that retailers figure on "cents" margin rather than a percentage margin for a dozen eggs although they actually tend to take more on the smaller sizes than on the larger sizes. We cannot assume, however, that retailers paid the Boston wholesale price for these eggs, and the following section will give a more accurate picture of margins based on prices paid for eggs.

Retail Margins on Fresh Eggs

Determinations of gross margins on eggs sold by retail stores have been made at several different periods. A summary of these data is presented below:

Period covered	Place	Size of sample taken: Number stores	Size of sample taken: No. sales involved	Gross retail margin (Per dozen): Range	Gross retail margin (Per dozen): Average
January, 1931	Nashua	25	(Averages)	5—13¢	9.1¢
January, 1931	Exeter	16	(Averages)	5—10¢	8.9¢
1932-1933	Concord and Dover	35	296	2.4—12.4*	6.5¢
1935-1936	(38 N. H. towns)	—	630	5.7—9.1*	6.2¢

*Range in monthly averages for all towns.

COMMENTS

Advantages and Disadvantages of the Auction Method of Selling

An auction is generally considered a good price setting mechanism because the buyers themselves set the price by bidding against one another. It is also supposed to set more accurate market values on the different weights and grades as prices tend to fluctuate freely as influenced by supply and demand. If functioning normally, all eggs will move at a price and so the auction offers a ready outlet for any quantity of almost any size and grade twice each week. Producers appreciate having this certain outlet.

From the buyers' standpoint, the auction offers a definite marketplace at which he can usually go and obtain any quantity of the quality, color and size of egg he requires for his customers at frequent intervals. Because of the fluctuations in supply of an individual producer due to conditions within his flock, and the use or sale of hatching eggs, the buyer is not sure of a supply when he buys direct. Some producers may be tempted to sell elsewhere at a higher price and the buyer may find he has made a trip for nothing—or he may have to hunt up still another producer to obtain the quantity needed. The buyer finds that he may waste a great deal of time "hunting for eggs", especially in the short season.

The auction has really been the first type of market which has concentrated a large supply of high quality native eggs at one point. When this fact becomes generally known, it constitutes a very valuable type of advertising. One of the principal criticisms by users of native eggs has been the lack of volume and uncertainty of supply.

There are, of course, always a few people who feel that the auction holds down the price because buyers will not pay more than the auction figure. This may actually be true for some, but since the auction price has averaged above the Boston Wholesale market and since the Boston Wholesale price was previously the basis for arriving at a price, it would seem that auction prices have tended to raise the level of prices, at least relative to the Boston Wholesale quotations.

We may sum up a few of the advantages and disadvantages as follows:

Advantages

1. Brings together a large supply of native eggs at one point.
2. Offers a product to buyers properly marked as to grade and weight.
3. Gives producers a continuous outlet for any quantity of eggs.
4. Returns are made promptly.
5. Eggs are sold on basis of merit (grade and weight).
6. Producers receive a candling report on every case which enables them to intelligently make improvements.
7. Reports on prices obtained are available to all and so tend to greater uniformity of prices for all eggs of a grade.
8. Places a market within the State, and the nearer the market is to the producer the greater influence he has in its control.

9. Offers a good outlet for surplus eggs for some producers who have special markets for part of their supply.

Disadvantages

1. Submerges the identity of the individual to a certain extent because a number is used on his product instead of a name. Producers with a good product obtain some pleasure and more benefit in using their own names.
2. In some cases auction sale results in extra costs due to additional shipping and handling charges.
3. Auction sale does not permit a continuous flow of eggs into the market, as they are sold but twice each week.
4. It is inconvenient to many buyers to come to the place of sale, and yet a number of buyers at sales (in person) are necessary for a proper price setting mechanism.
5. Auction sales render a less complete service than required to hold many buyers.
6. There tend to be too few buyers at auction sales when eggs are arriving in large volume to move them to best advantage.

Future of Auction Method in New Hampshire

Just how important a place will the auction method of selling eggs hold in the marketing of New Hampshire eggs in the future? Is it the "last word" in marketing, is it just one step in the building of a market program, or will it remain as one of many sales agencies?

Auctions have served well in moving large quantities of goods brought to a concentration point which is often near the production end.

Many buyers, however, prefer to bargain directly with producers or sellers. Some want continuous service or a different type of service and will not patronize an auction as long as other services are available. It appears, then, that producers must furnish other types of service if there is a demand for them or someone else will do it.

If producers controlled a very large percent of the eggs, it appears that such eggs could be moved through auctions very satisfactorily. The auction sales could be held more frequently if volume and a more continuous movement seemed advisable. Many buyers will need a jobbing service, and the auction in production territory does not meet their needs. Either auctions will have to control a large volume of eggs and do a wholesale business or render other types of services especially to meet the needs of buyers of jobbing lots in the cities.

Premiums on Heavy Weight Large Size Eggs

While premiums for the heavier weights of large size eggs do exist when considered on a dozen basis, the prices per pound are usually lower for the heavier weights.

Some producers had previously been unable to obtain any premium on some of the heavier weights. The sale on the auction of cases properly marked by weight has, therefore, undoubtedly been advantageous.

The following practices may encourage better relative returns on these heavier weights:

1. Continued sale of wholesale eggs with proper marking of weights on the auction and adoption of such practice on eggs sold on other markets.
2. Marking of weights on retail packages of eggs.
3. Consumer publicity explaining or calling attention to the real values of some of the heavier weight eggs.
4. Sale of eggs by the pound.

Candling and Egg Quality

Egg Rooms—The increased use of furnaces in farm homes and the placing of incubators in cellars have resulted in many cellars being too warm to properly hold eggs. Unless a cellar is available which will hold temperatures below 60° F., it seems advisable to provide a special egg room which will hold low temperatures.

Candling—The candling of eggs by the auction and the furnishing of candling records to producers have made less need for candling equipment than before. Nevertheless, a candler is of value to check on eggs from time to time, and the candling of eggs is desirable for those selling in other ways to a high class trade. Persons who sell on the auction and have replacement costs above average (3.8¢ per case in 1934-1935) may well consider methods of reducing losses and a candler should be of use.

Prices

Reports—Auction quotations refer to actual sales of specific quantities, grades and weights of eggs and are of special value for that reason. Reports covering "Bulk of sales" are more valuable than the extreme range of prices although the latter is always of interest to producers.

White eggs—White eggs average about 1.5¢ per dozen under browns for the same grades. Because of the small quantities of white eggs sold, special effort should be made to find an unprejudiced market for them. Summer residents from white egg sections may even prefer white eggs and in such cases would pay as much or more for them than for browns.

"Very large" eggs—Very large eggs constitute a problem both from a packing and a sale standpoint. No official grade has been established for them. With more cases of eggs weighing 27 oz. or more per dozen than in either the pullet or peewee grades it would seem that an official classification of "very large" may be justified. Such a retail grade might result in greater recognition and result in prices more nearly in line with their worth.

Tolerance on Sizes of Individual Eggs

Additional time is required in the grading process to meet exacting requirements on the size of individual eggs. While it is probably desirable to maintain a small tolerance on the number of medium size eggs allowed in the large size, it would simplify the grading process if

size requirements on individual eggs were dropped in the smaller sizes. Persons buying the smaller sizes are usually more interested in price than in whether all eggs are of one size. A minimum average weight should satisfy the requirements in peewee and pullet sizes.

Chain Store Purchases

Chain stores are becoming more important buyers of auction eggs. Their representatives, however, seldom attend sales and bid in person. Usually they "take up the slack". Along with wholesalers they put a "floor" under the market. If eggs are short, they will of course have to bid up with the rest of the buyers.

"Off sales" are made to wholesalers and chains. They constitute an important outlet when volume of eggs is too heavy to move on auction sales alone or where physical facilities would be overtaxed if held for the regular sale date.

Most of the chains buy eggs direct from producers, and some of them want to continue to obtain a substantial volume in this way as they become less dependent on any one source of supply.

The auction has a real problem here, and it will never be able to deal most effectively as long as any large number of producers insist on selling direct.

A producers' organization, whether an auction or another type of agency, could serve its producers better if it had control of those eggs now moving direct to the chains and wholesalers.

If sale of eggs through the auction to chain stores results in reshipping and duplication in handling and candling services, the extra expense involved is certain to restrict the sales volume. Either arrangements should be made to have eggs suitably candled and packed for the "chains" so that extra handling can be eliminated, or else producer members should bargain through their organization and arrange to make direct shipments. If shipments are made direct, the eggs must either be graded and packed at the farm (and this is often impracticable) or else the grading of the chain store would have to be accepted. While direct shipments might work out satisfactorily for some of the bigger shippers of good quality eggs, it would seem more satisfactory to have smaller shippers ship through the auction where they can be graded. It should also be kept in mind that an organization is always at a disadvantage in bargaining when it does not handle and have absolute control of its product. Therefore, bargaining in connection with direct shipments is only good as long as it works.

Handling of Auction Sales

Most egg auctions hire an auctioneer to sell their product. It seems to be generally believed that such an auctioneer should not know whose eggs he is selling in order to be unbiased. Viewed from another standpoint, the better an auctioneer knows his product, the more effective his selling.

The New Hampshire Egg Auction hired an auctioneer at first but the manager has auctioned for some time now. This has apparently met with success and has reduced expense. However, the success in

this case is undoubtedly due to the ability of the manager and the confidence of buyers in him. This practice may serve in special situations.

Bidding in of eggs for telephone buyers is done by an employee of the auction. At some auctions the buyer on telephone bids is announced when the sale is made. This seems a desirable practice to follow as it tends to instill confidence in the bidding.

APPENDIX

TABLE A-1.—*Percentages of various grades of all large brown eggs* sold on N. H. Egg Auction, July, 1934—December, 1936*

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1934												
Double Yolk	.....	.....	.....	.....	.....	.....	11.1	.....	5.7	3.7	1.7	.9
Specials	.....	.....	.....	.....	.....	.....	79.5	83.4	84.2	92.9	92.6	94.7
Extras	.....	.....	.....	.....	.....	.....	6.6	9.4	6.9	2.8	4.2	3.4
Pro. Grade	.....	.....	.....	.....	.....	.....	2.8	7.0	3.2	.4	1.2	.6
Dirties	.....	.....	.....	.....	.....	.....	.....	.2	.....	.2	.3	.4
1935												
Double Yolk	.6	.2	.3	.2	.2	.1	.2	1.2	3.5	3.9	2.1	1.3
Specials	95.8	96.9	95.6	95.7	95.5	93.2	95.8	95.0	91.4	89.9	93.0	96.3
Extras	2.7	2.4	2.5	3.2	1.8	3.7	3.1	2.9	3.4	3.2	2.4	1.2
Pro. Grade	.6	.5	1.3	.9	2.3	3.0	.7	.8	1.6	2.8	2.3	1.1
Dirties	.3	.....	.3	.....	.2	.....	.2	.1	.1	.2	.2	.1
1936												
Double Yolk	1.0	.8	.4	.4	.3	.3	.3	1.4	5.8	6.3	3.5	1.6
Specials	96.3	95.1	94.3	92.3	91.9	90.6	93.0	94.5	90.8	89.8	93.3	95.5
Extras	1.4	2.8	2.8	4.6	6.3	6.8	5.4	2.6	1.6	2.6	1.1	1.0
Pro. Grade	1	.8	2	2.3	1.2	1.7	1.1	1.3	1.7	1.1	1.7	1.8
Dirties	.3	.5	.5	.4	.3	.6	.2	.2	.1	.2	.4	.1

*Less than 1 per cent of large eggs under miscellaneous are not accounted for in above.

TABLE A-2.—*Summary of individual candling reports of eggs in cases grading Specials and Extras (large brown) for twelve months N. H. Egg Auction—1934-1935*

	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
Number cases*	382	490	399	585	953	1634	1434	1075	1250	1314	1225	1101
Av. weight—lbs.	61.6	61.9	61	59.8	59.9	60.1	60.4	60.8	61	61	61.1	61.4
Percent—specials	86.7	86.9	89.4	90.11	88.9	87.3	87.1	87.4	86.8	87.1	86.9	86
Percent—extras	11.1	11	8.8	8.4	9.6	11.2	11.5	11.5	12	11.6	11.6	12.2
Percent—undergrades	.69	.7	.74	.62	.61	.57	.47	.39	.29	.47	.34	.45
Percent—bad	.03	.03	.06	.05	.05	.06	.02	.03	.04	.06	.06	.1
Percent—blind cracks	.65	.53	.55	.46	.52	.61	.55	.40	.58	.54	.64	.63
Percent — meat and blood spots	.82	.85	.45	.32	.26	.31	.34	.25	.22	.33	.50	.58
Leakers—per case	.52	.52	.35	.13	.12	.16	.11	.12	.18	.14	.15	.2
Dented cracks—per case	1.43	1.67	.91	.48	.36	.34	.36	.52	.84	.72	.84	1.16
Underweights—per case	.17	.5	.8	.24	.29	.06	.06	.02	.02	.04	.02	.09
Dirties—per case	.18	.1	.002	.22	.1	.26	.21	.06	.13	.06	.08	.03

*Price and weight data cover all cases. Grading data cover approximately that quantity.

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